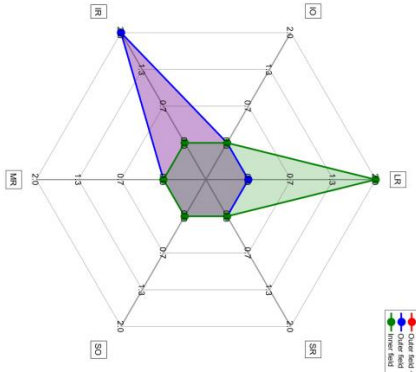


**Supplementary material****Supplementary figure 1**

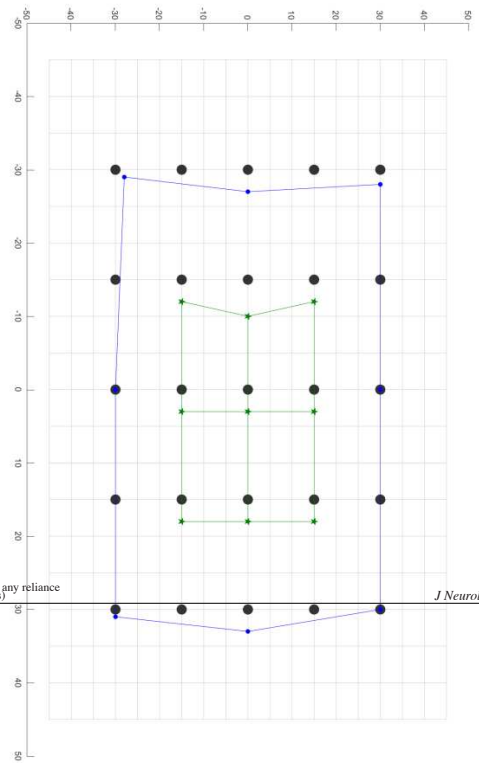
*Figure in image file*

**Supplementary figure 1.** The raw Hess charts belonging to the left eyes of all included health controls, MG subgroups, CPEO patients and OPMD patients. Individual patients are plotted on top of each other. Measurements of the inner field are plotted in green and measurements of the outer field are plotted in blue and connected. The drift after one minute is depicted with a red dashed line.

### Muscles left



### Hess chart left

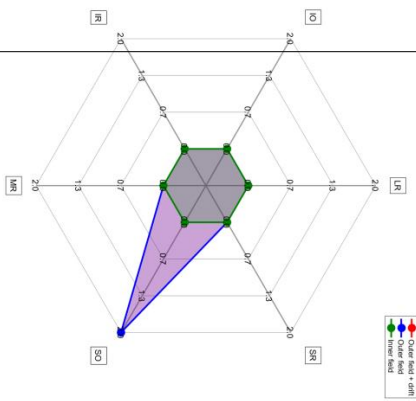


Supplemental material

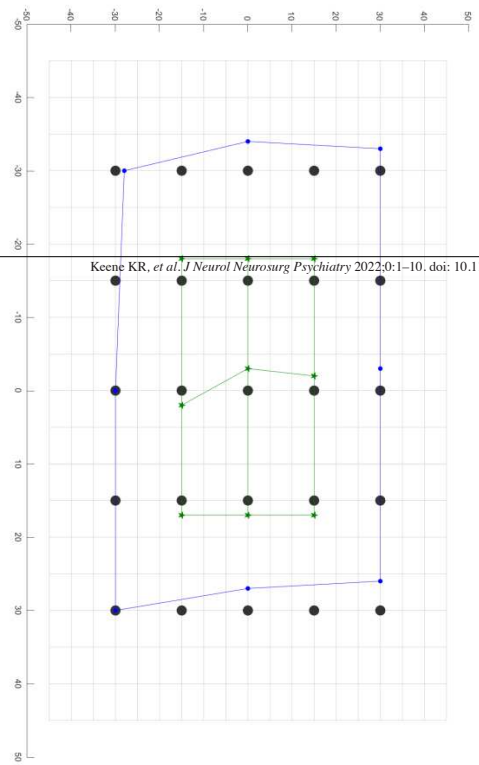
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### Muscles right



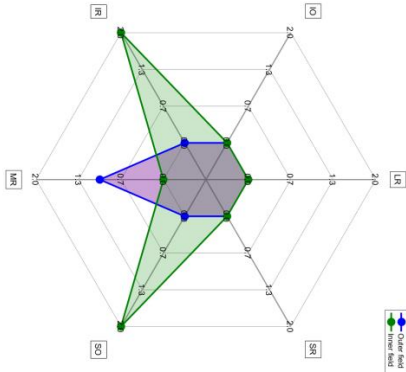
### Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

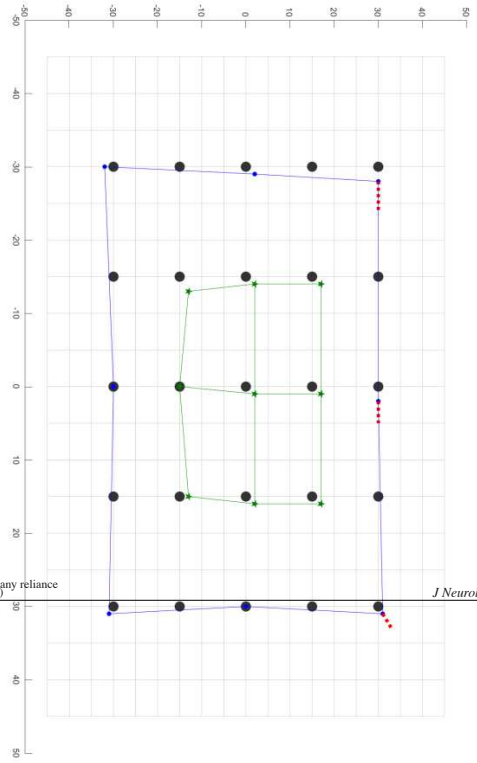
Patient number 1

## Muscles left



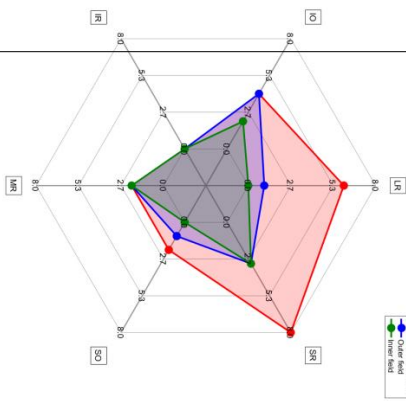
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## Hess chart left

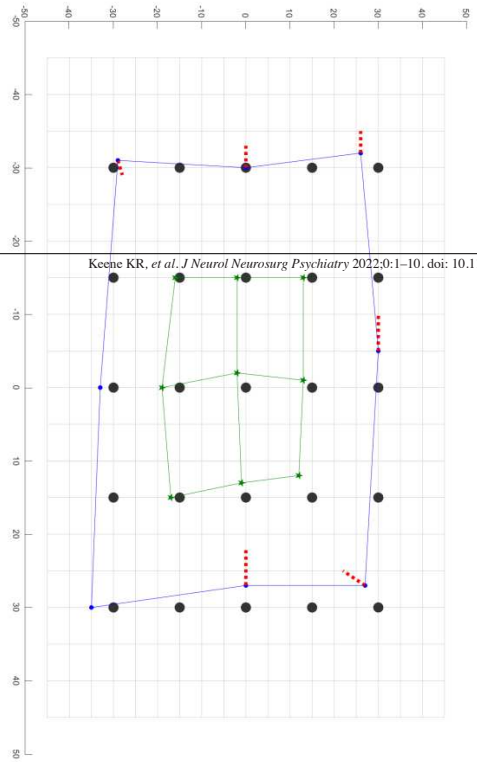


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## Muscles right



## Hess chart right

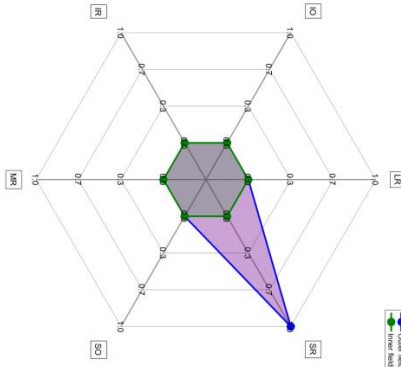


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Supplemental material

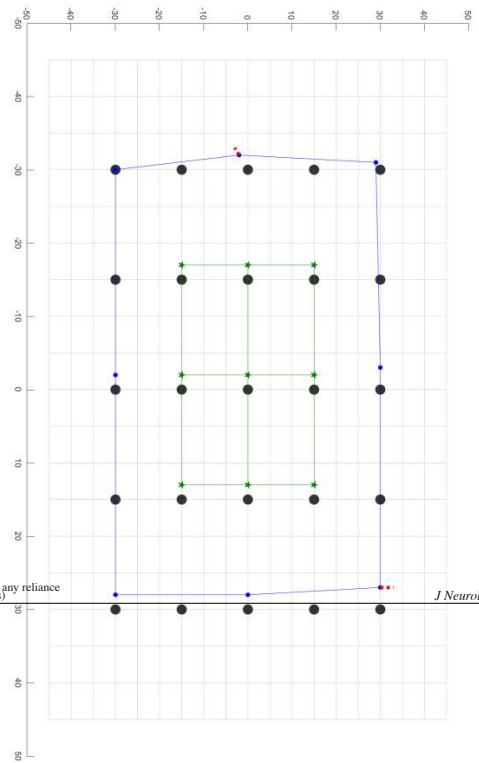
Patient number 2

### Muscles left



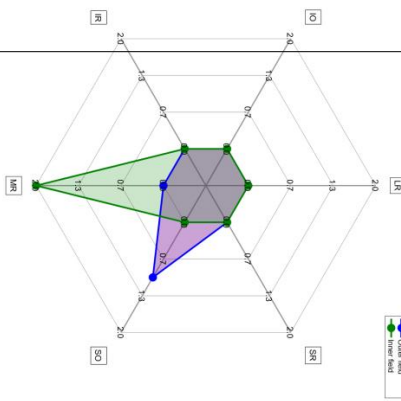
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### Hess chart left

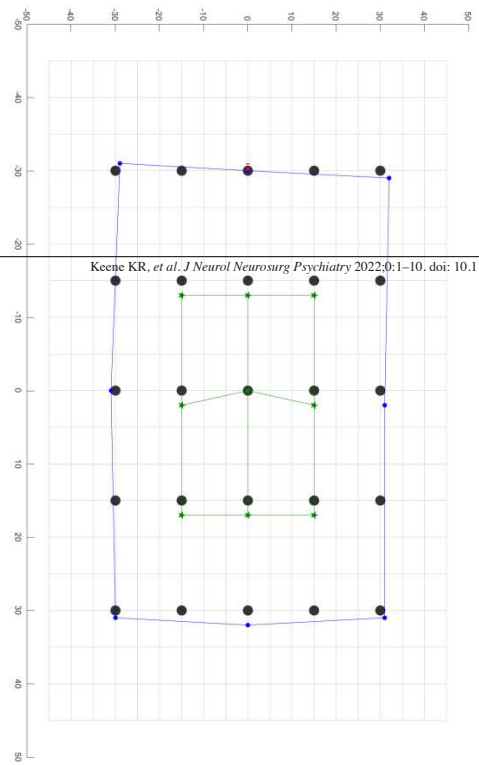


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### Muscles right



### Hess chart right

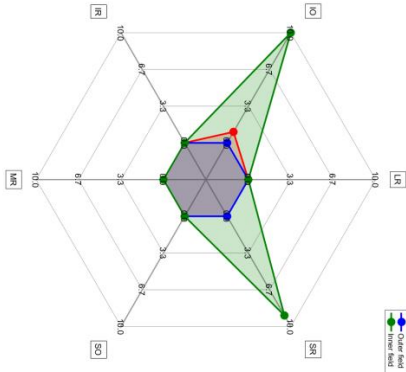


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 3

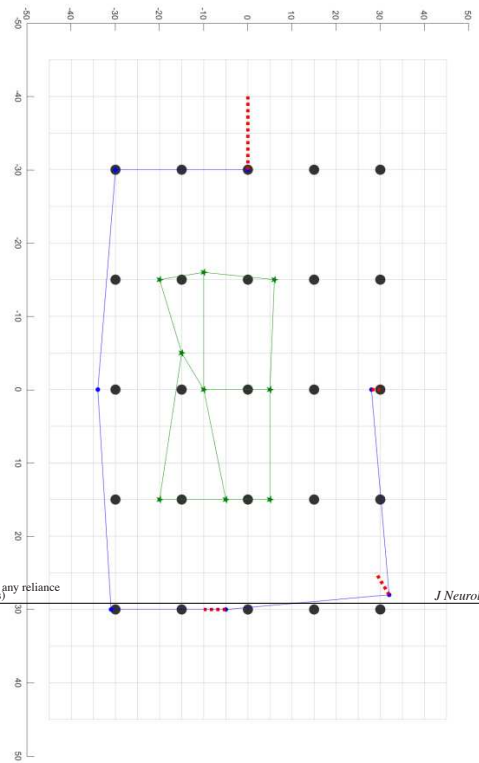
Supplemental material

### Muscles left



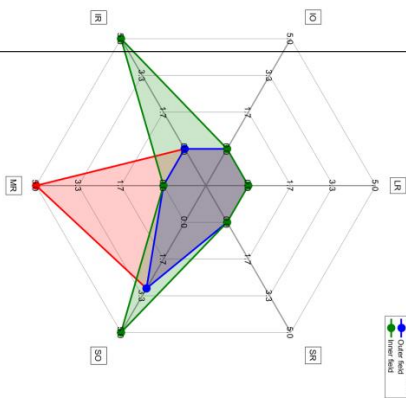
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### Hess chart left

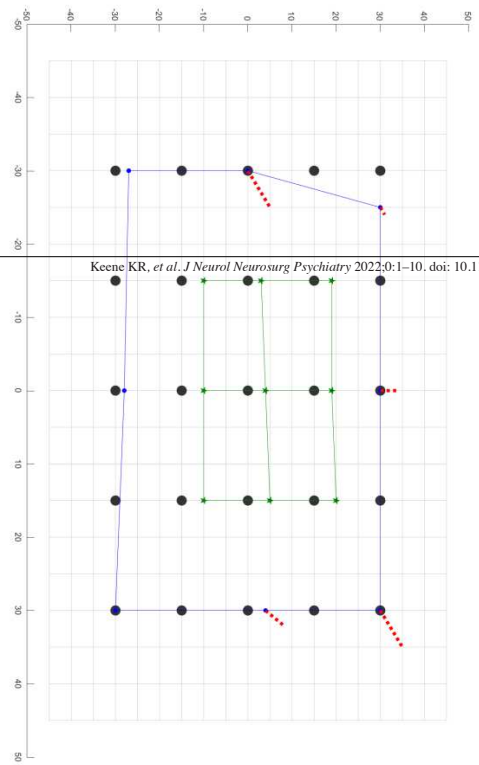


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### Muscles right



### Hess chart right

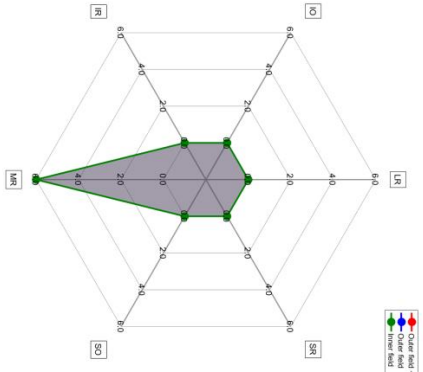


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Supplemental material

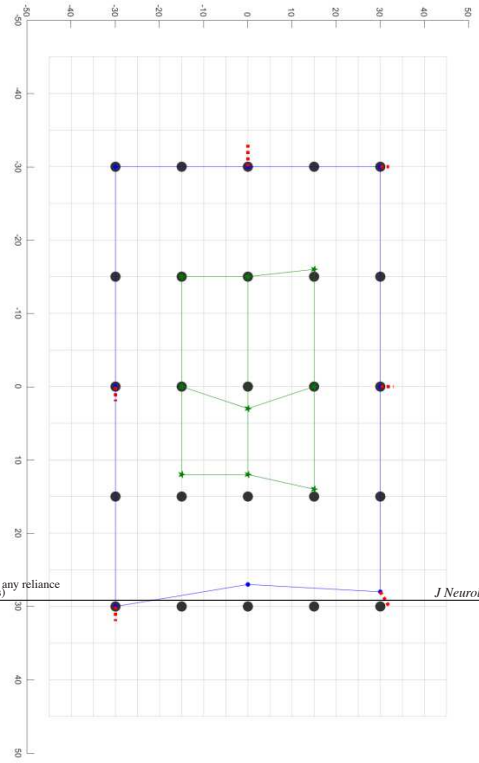
Patient number 4

## Muscles left



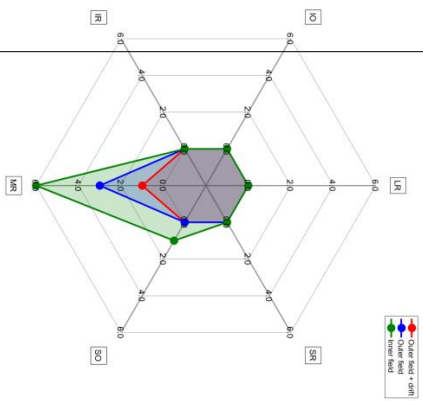
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## Hess chart left

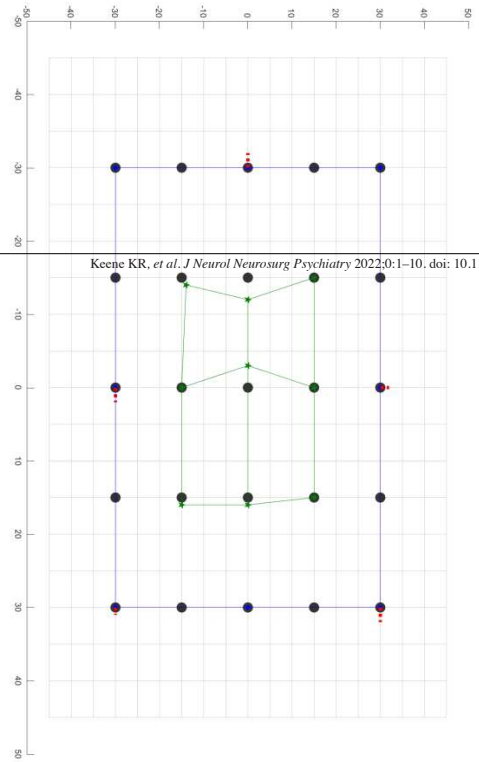


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## Muscles right



## Hess chart right

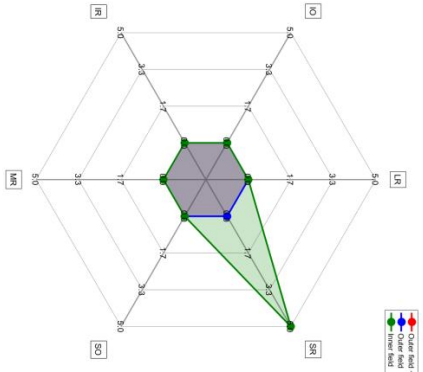


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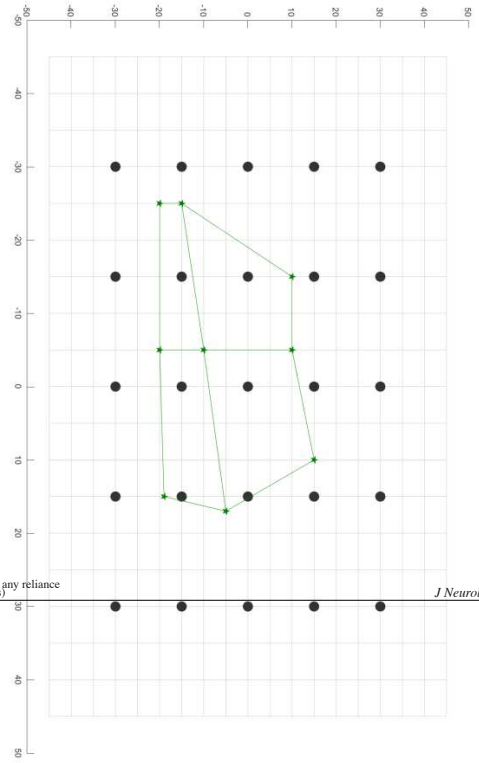
Supplemental material

Patient number 5

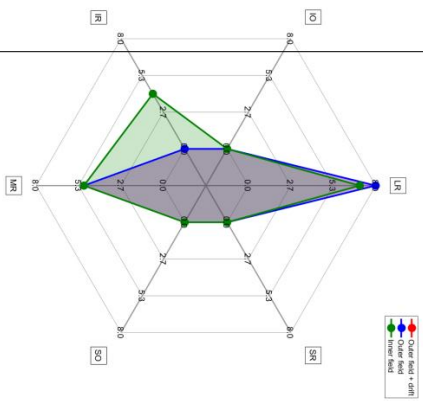
### Muscles left



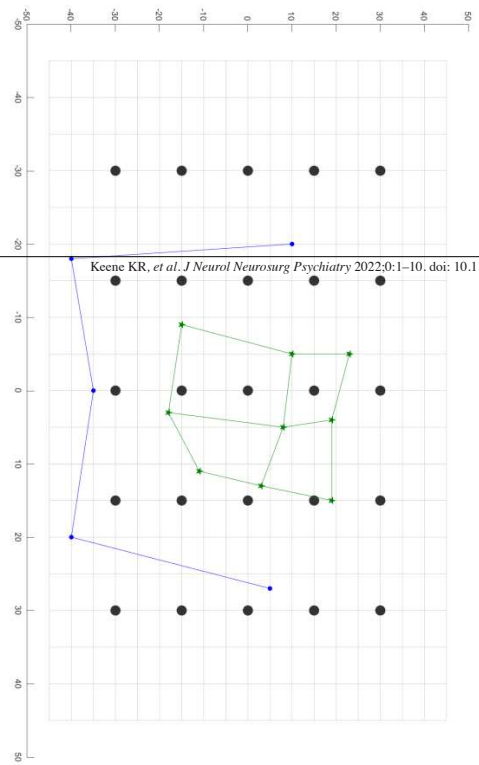
### Hess chart left



### Muscles right

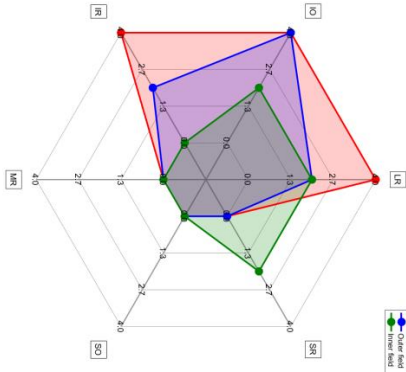


### Hess chart right



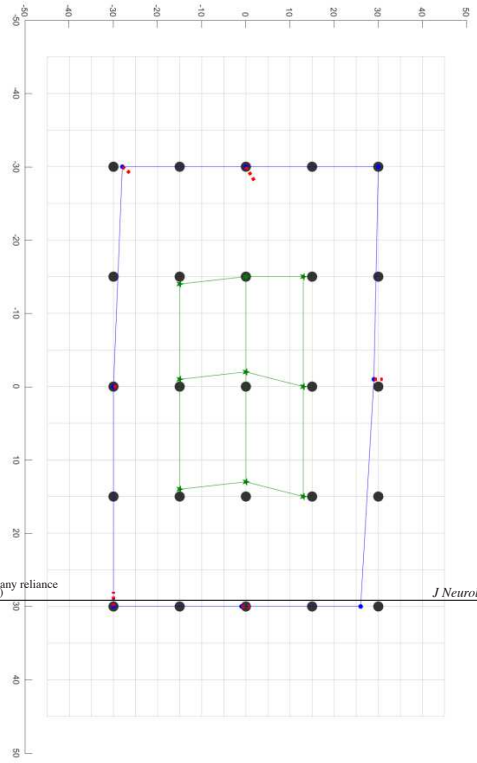


## Muscles left



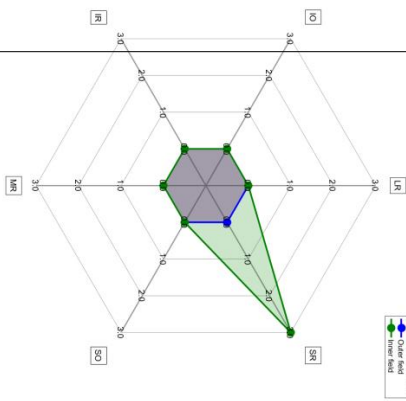
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## Hess chart left

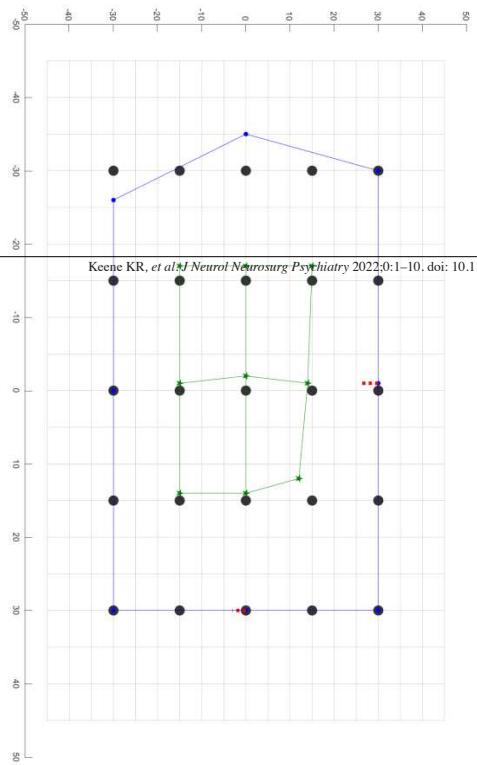


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## Muscles right



## Hess chart right

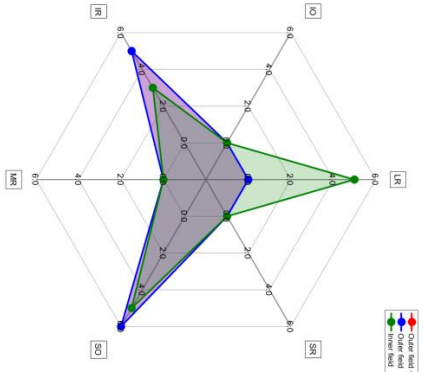


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Supplemental material

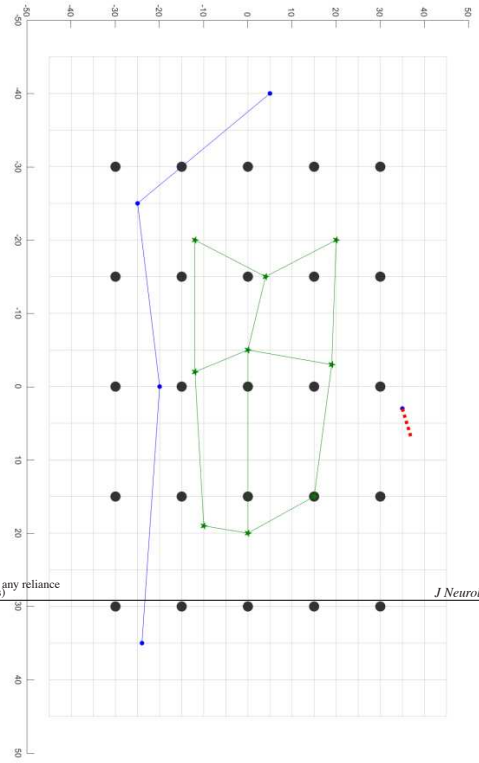
Patient number 7

### Muscles left



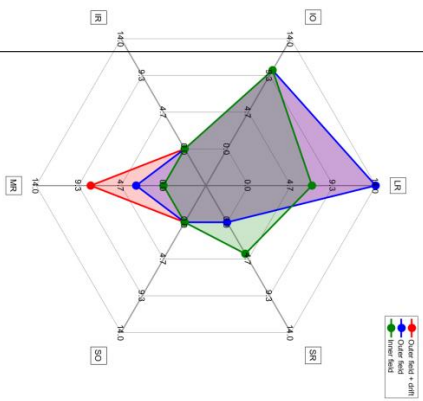
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### Hess chart left

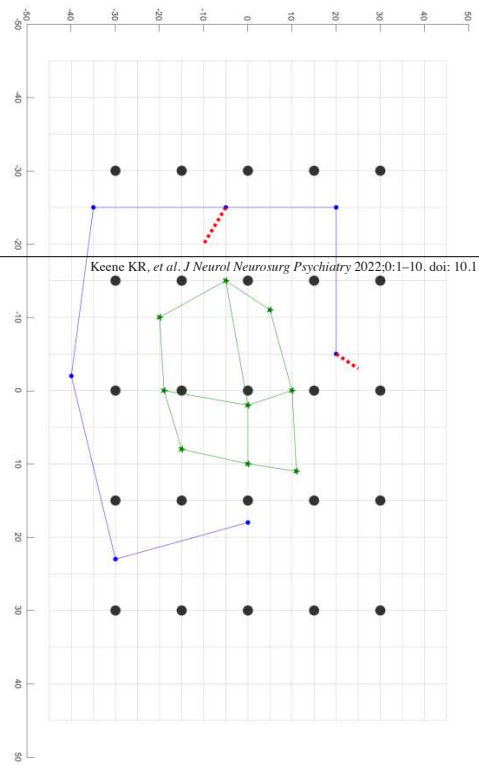


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### Muscles right



### Hess chart right

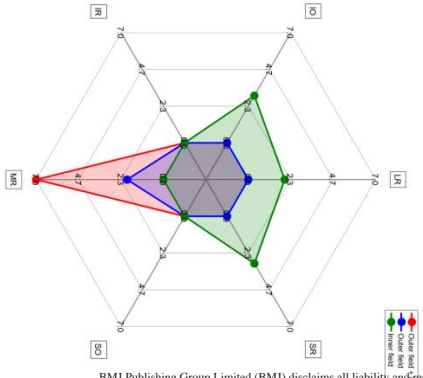


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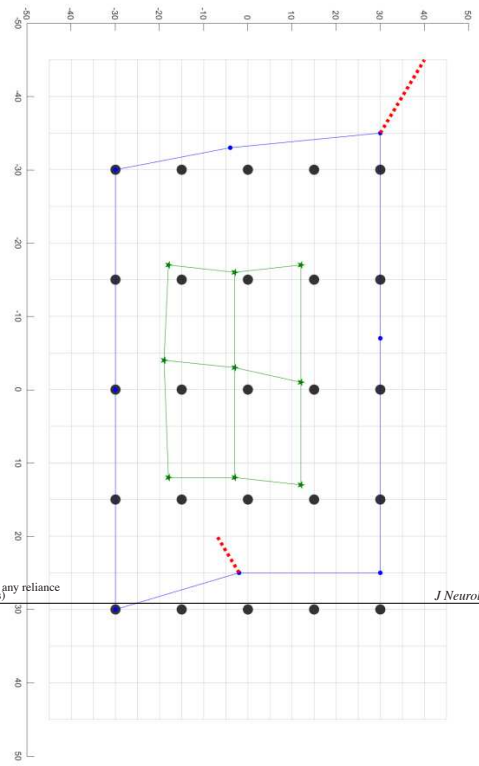
Supplemental material

Patient number 8

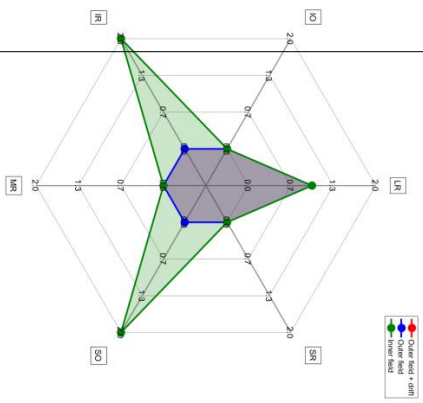
### Muscles left



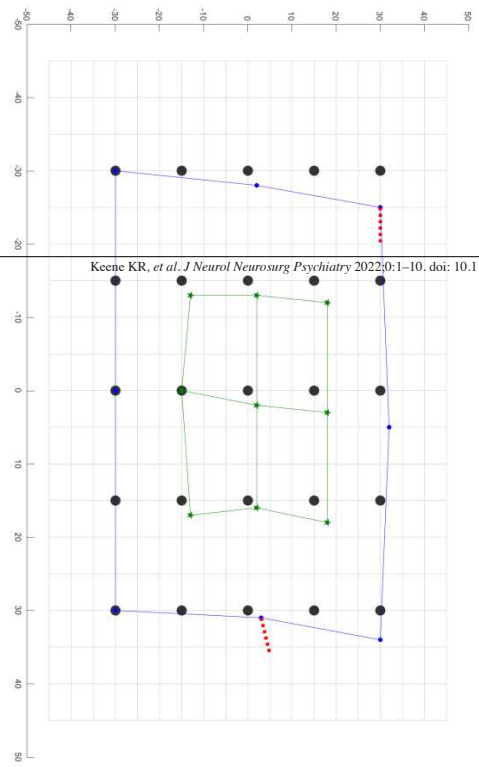
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

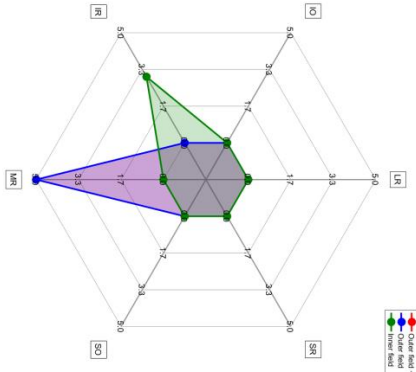
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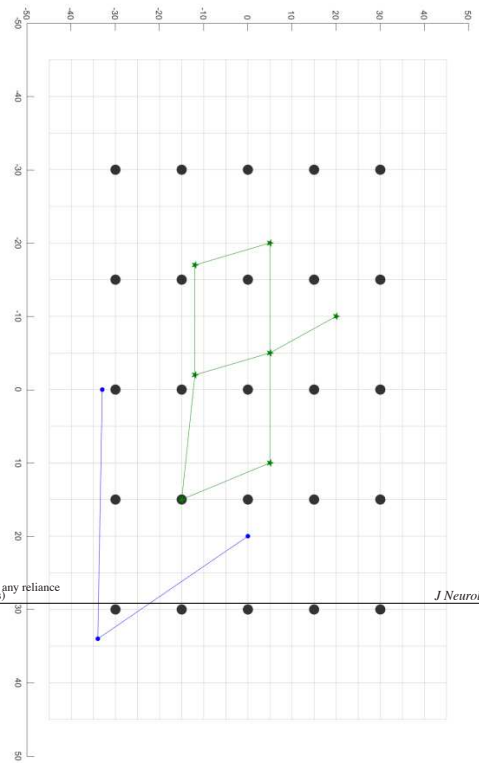
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Patient number 9

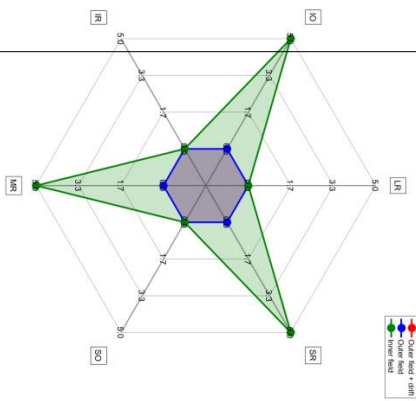
### Muscles left



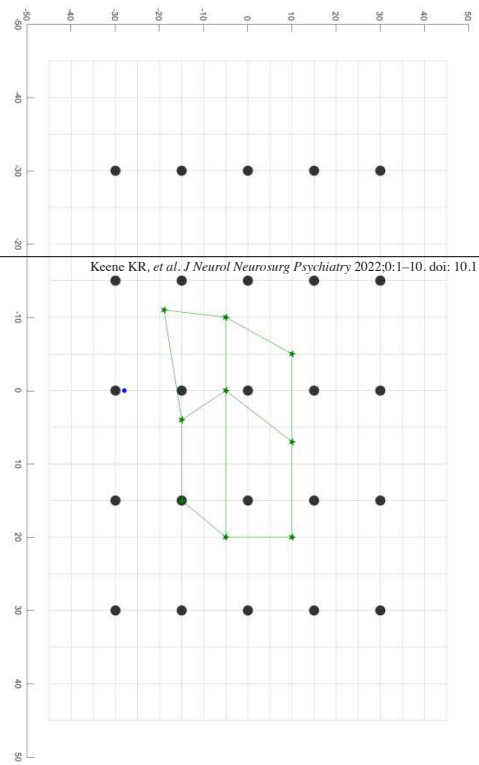
### Hess chart left



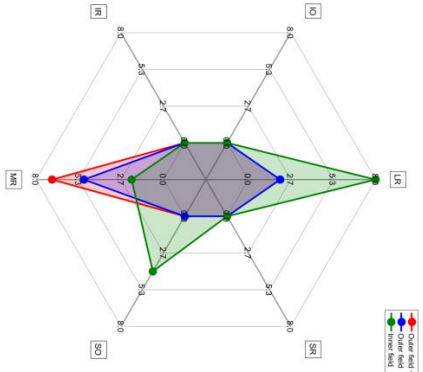
### Muscles right



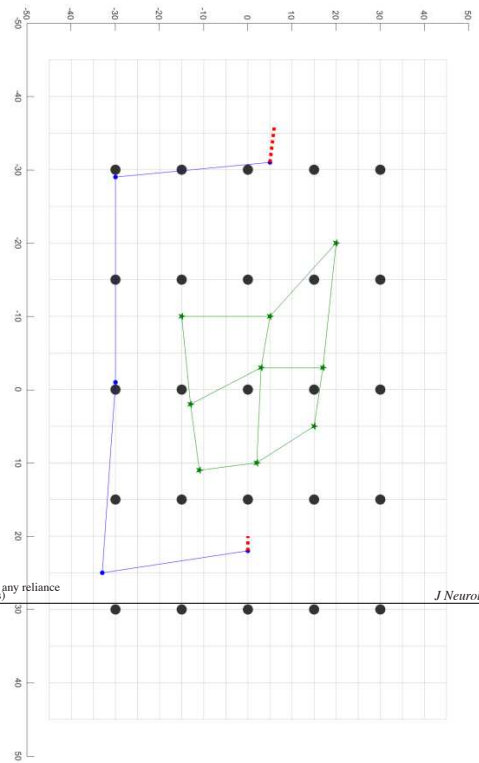
### Hess chart right



## Muscles left



## Hess chart left

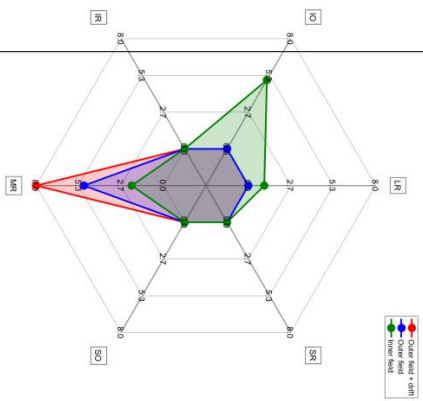


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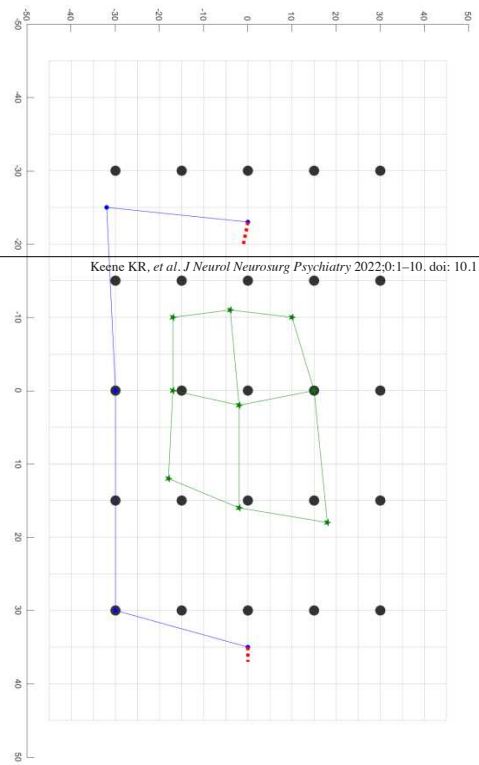
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## Muscles right



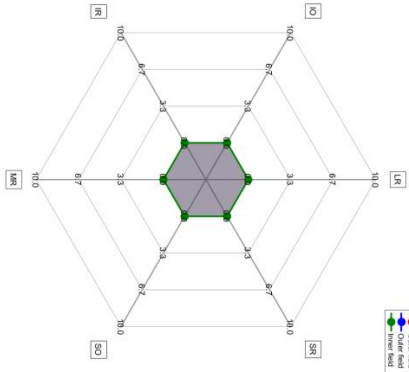
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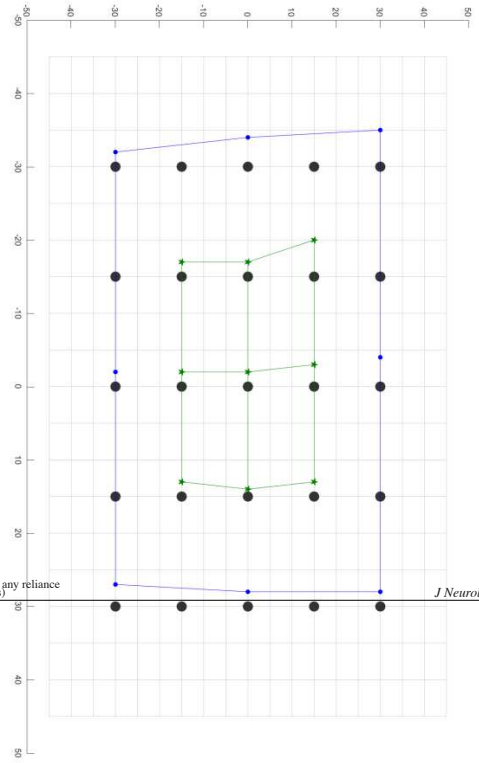
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 11

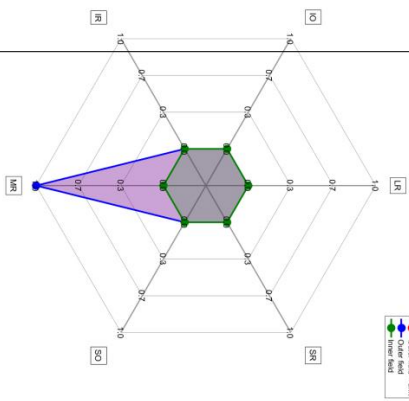
### Muscles left



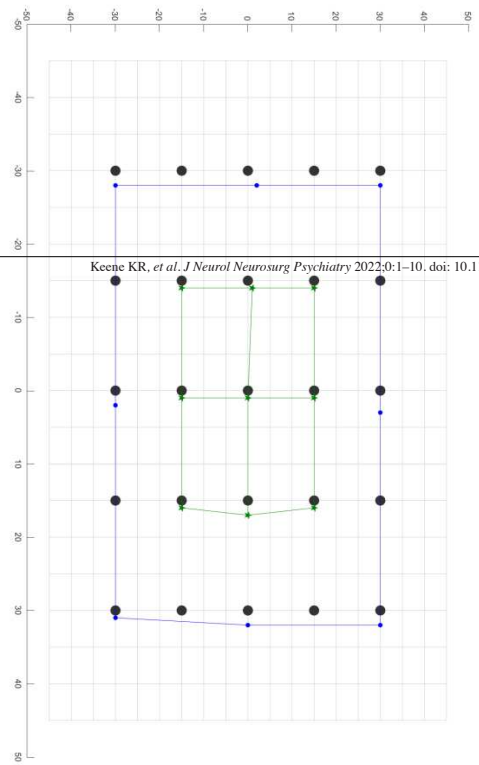
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

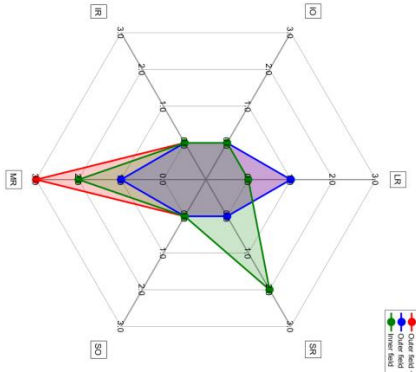
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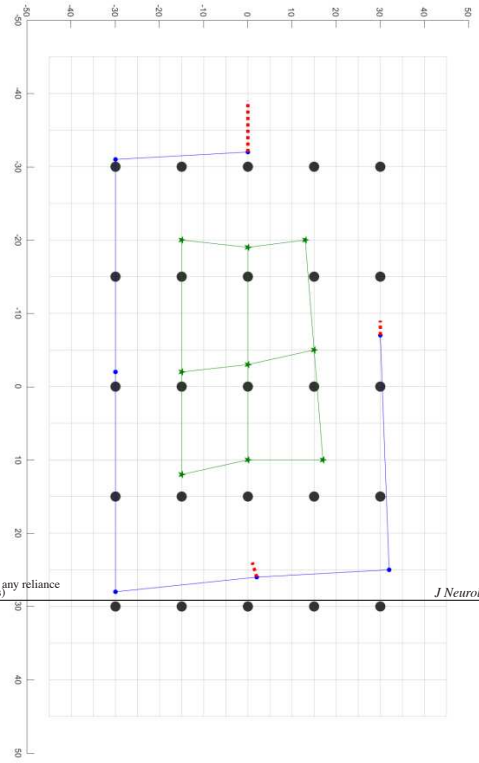
**Patient number 12**

### Muscles left



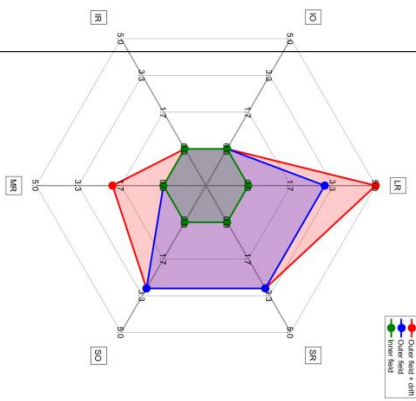
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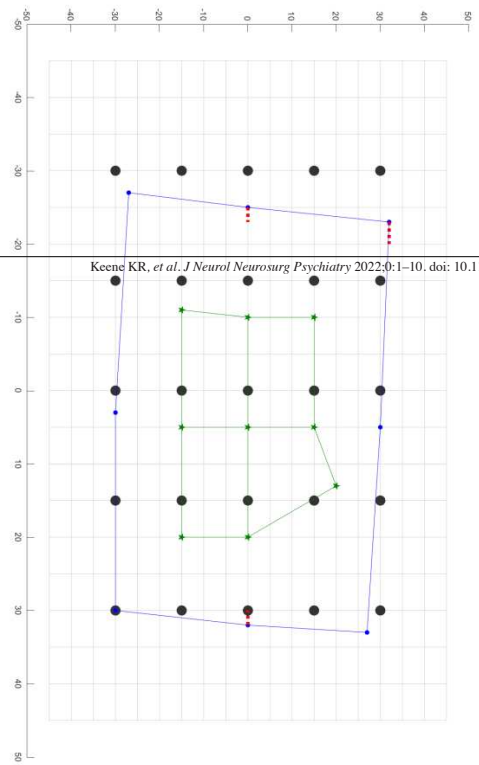


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### Muscles right



### Hess chart right

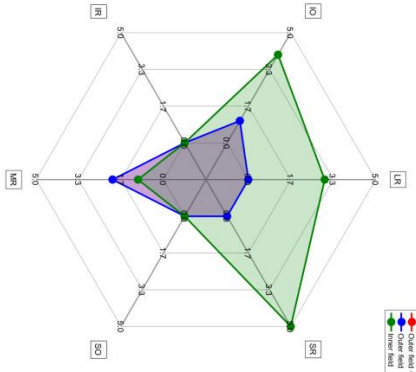


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Supplemental material

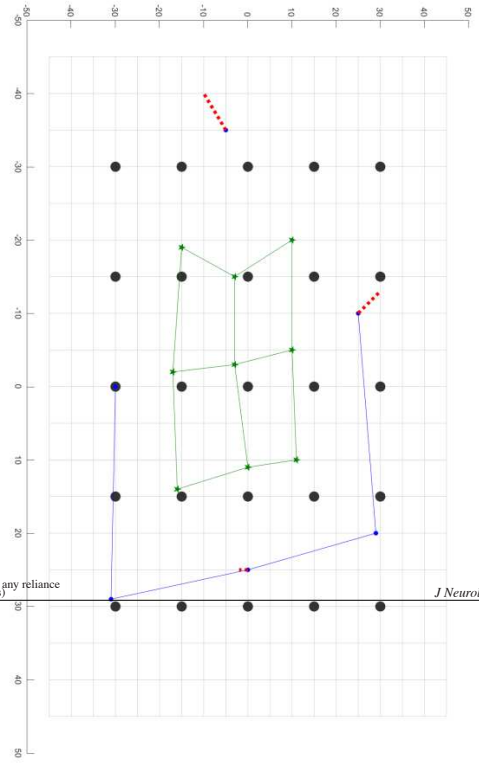
Patient number 13

### Muscles left



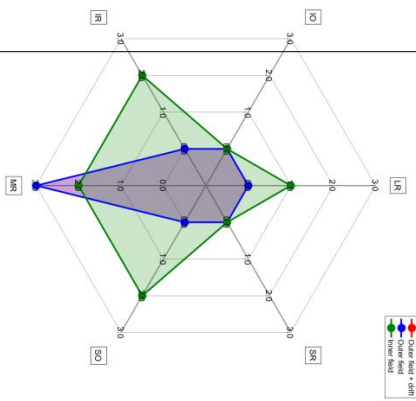
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### Hess chart left

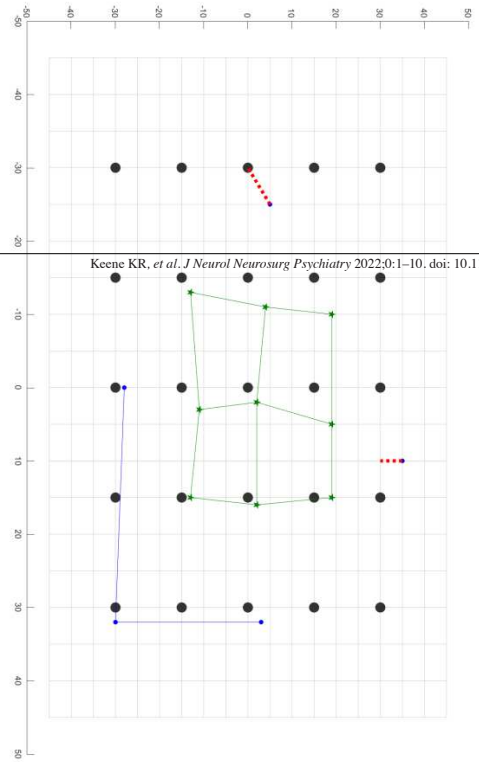


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### Muscles right



### Hess chart right



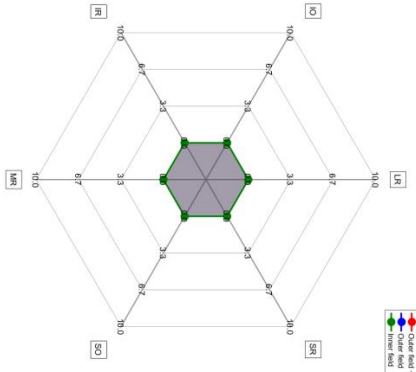
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Supplemental material

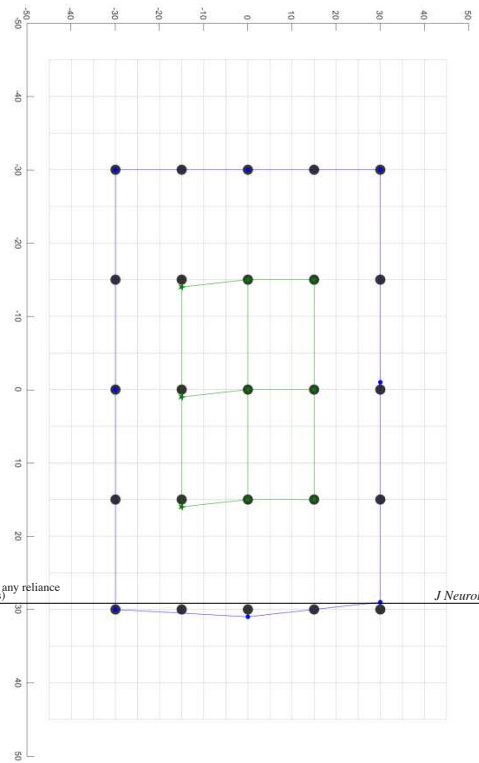
Patient number 14



### Muscles left



### Hess chart left

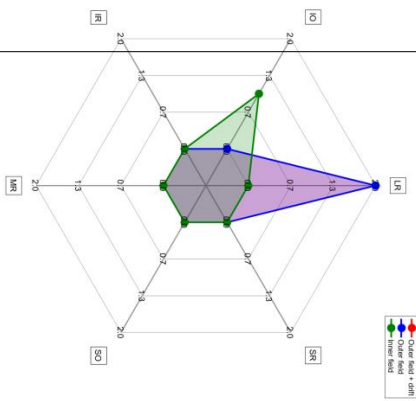


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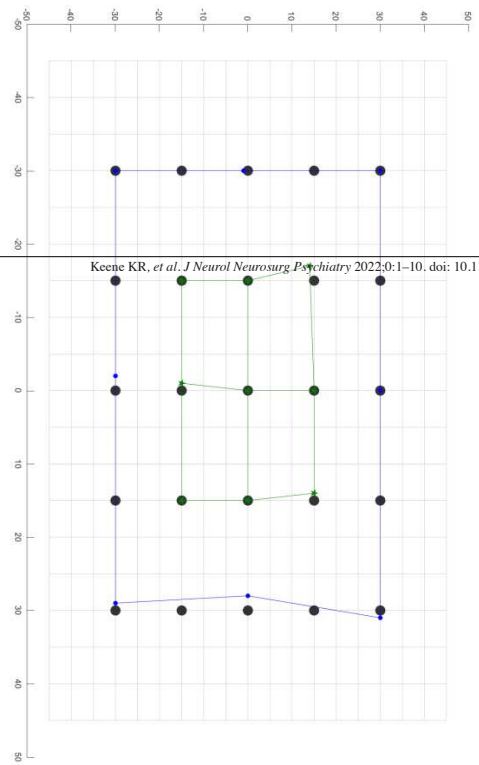
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### Muscles right



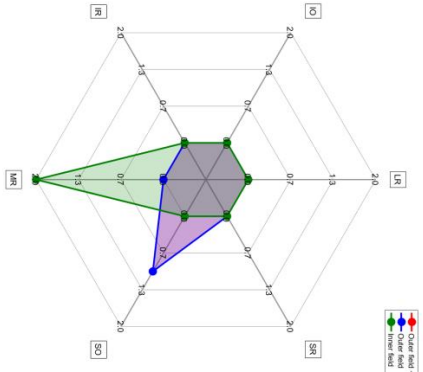
### Hess chart right



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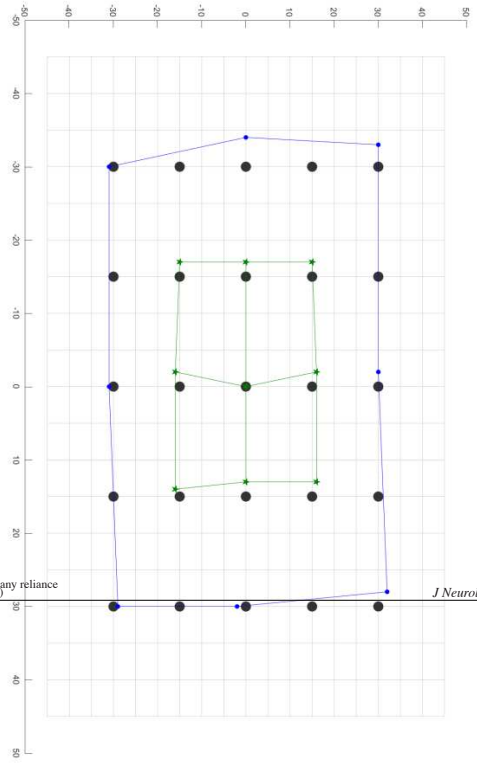
Patient number 15

### Muscles left



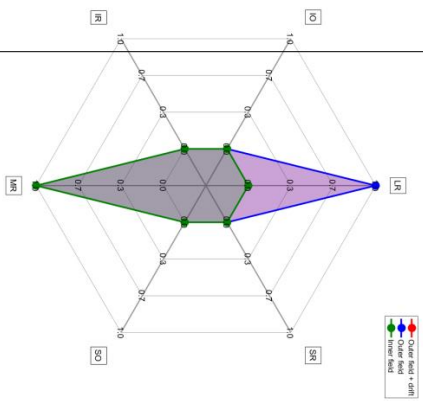
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### Hess chart left

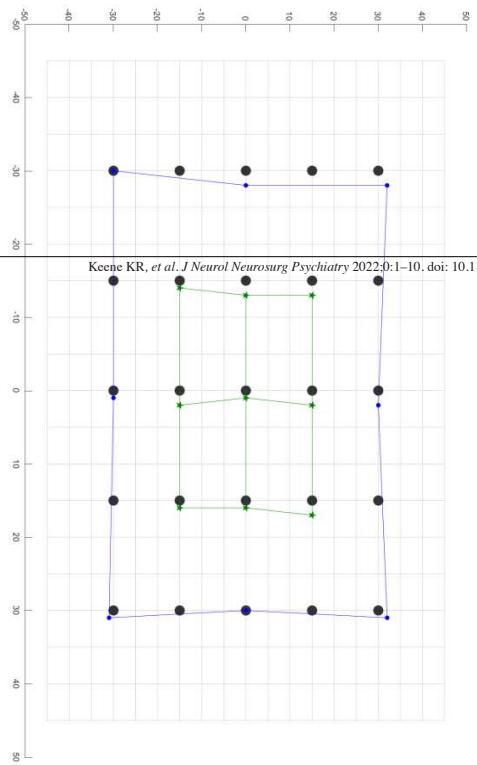


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### Muscles right



### Hess chart right

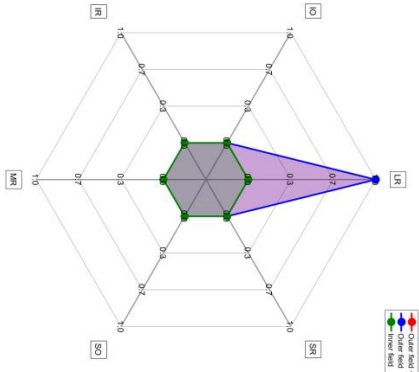


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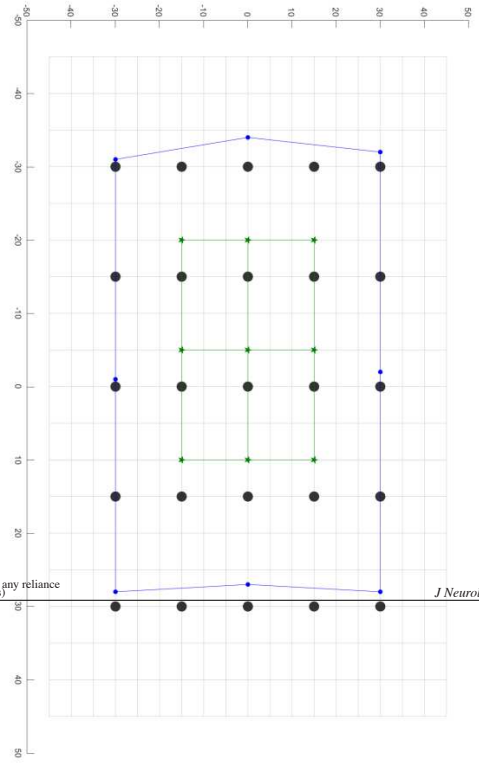
Patient number 16

## Muscles left



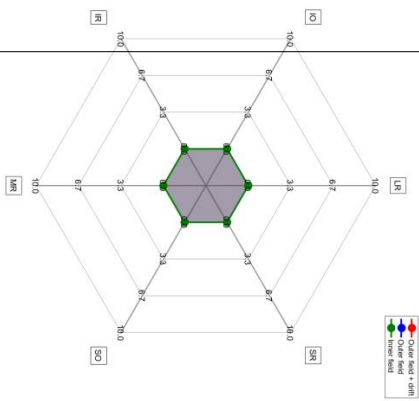
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## Hess chart left

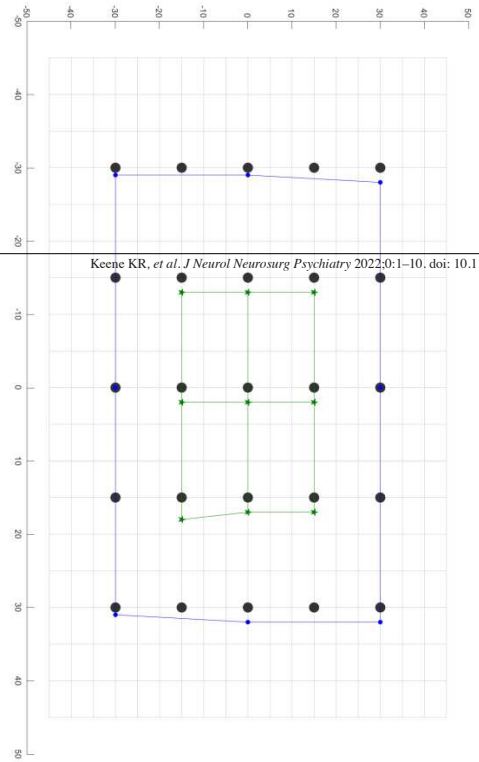


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## Muscles right



## Hess chart right

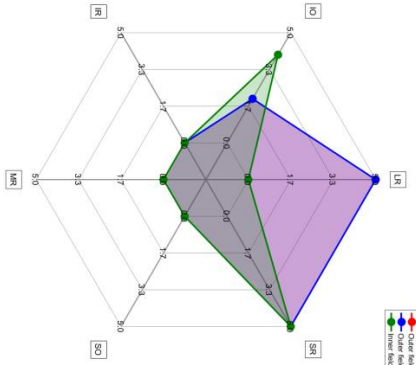


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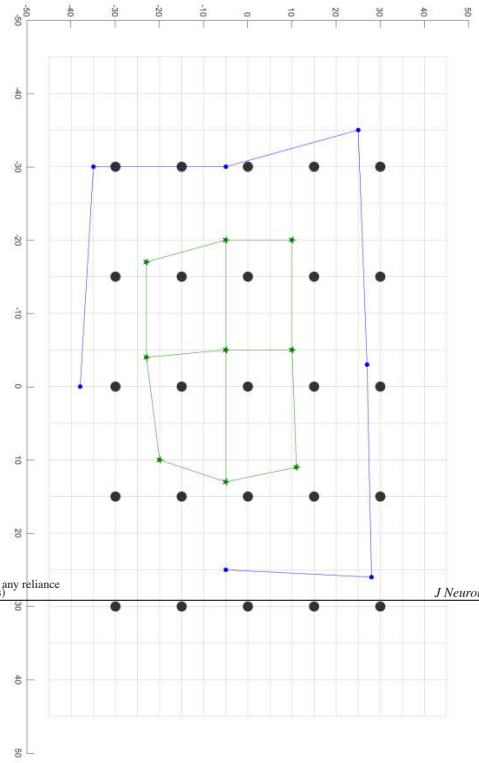
Supplemental material

Patient number 17

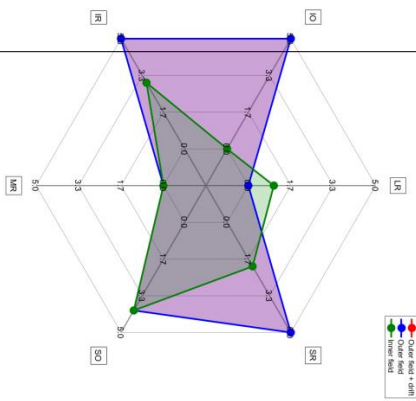
# Muscles left



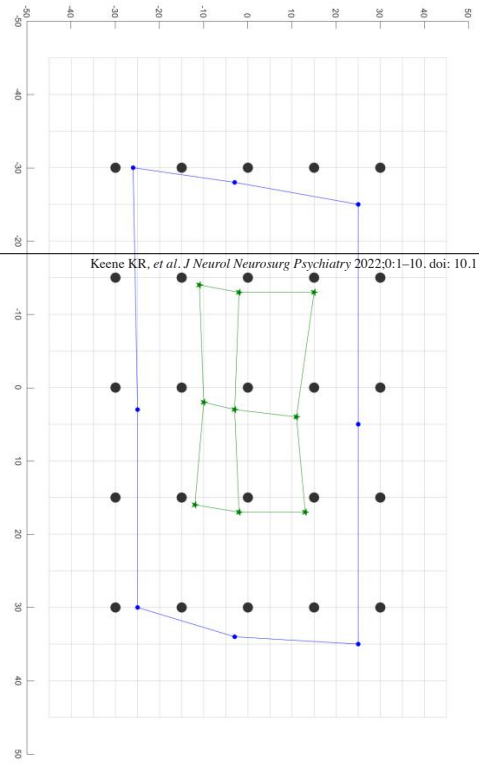
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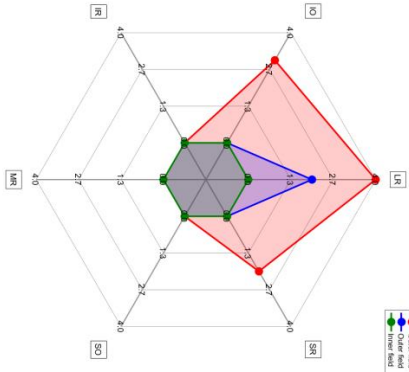
# Muscles right



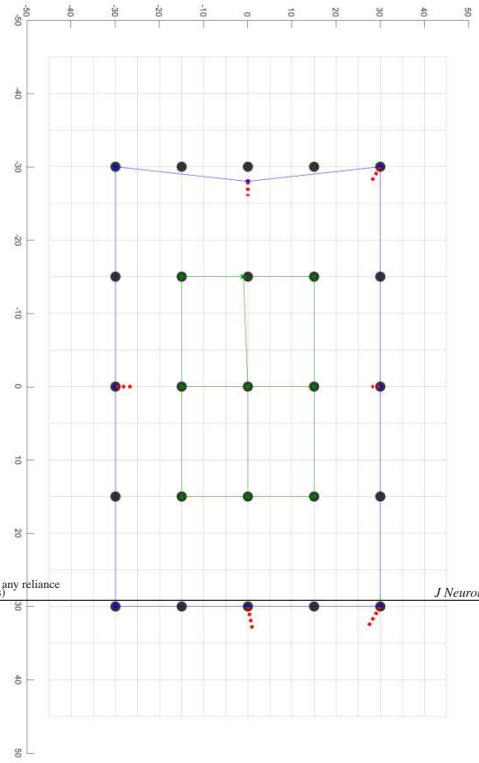
# Hess chart right



### Muscles left



### Hess chart left

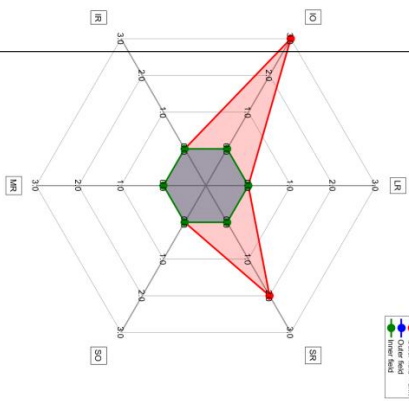


Supplemental material

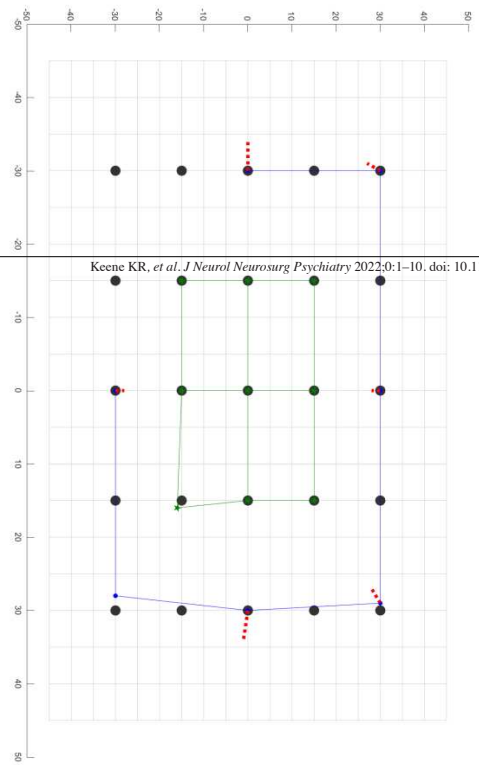
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### Muscles right



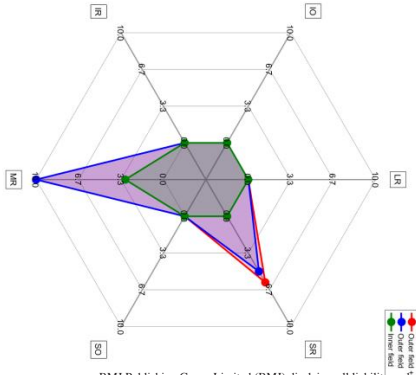
### Hess chart right



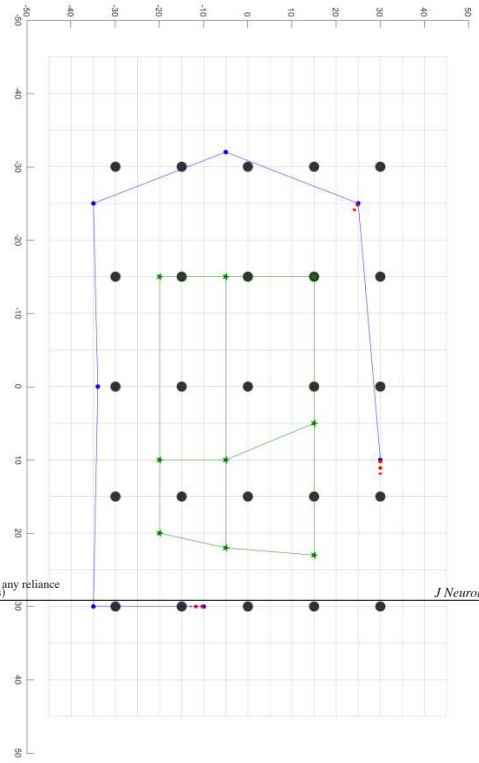
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 19

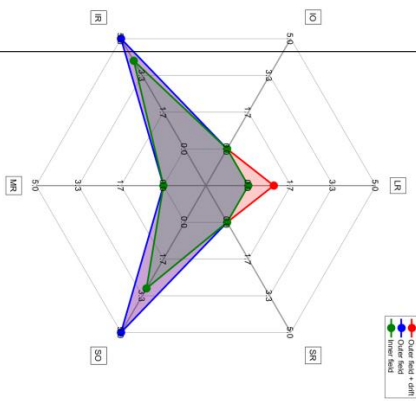
## Muscles left



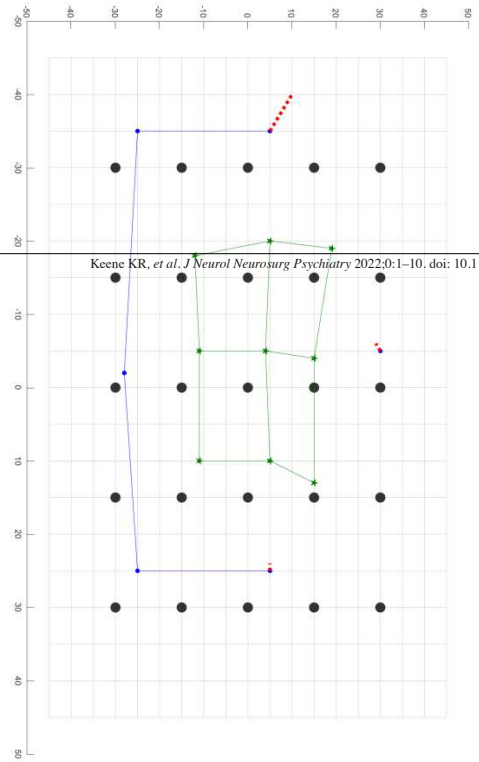
## Hess chart left



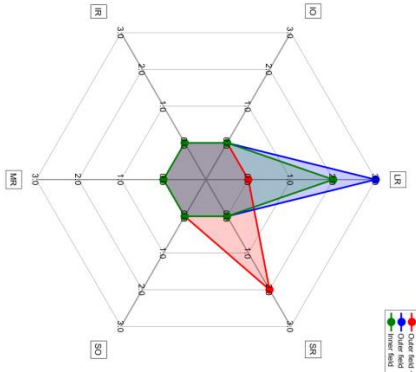
## Muscles right



## Hess chart right

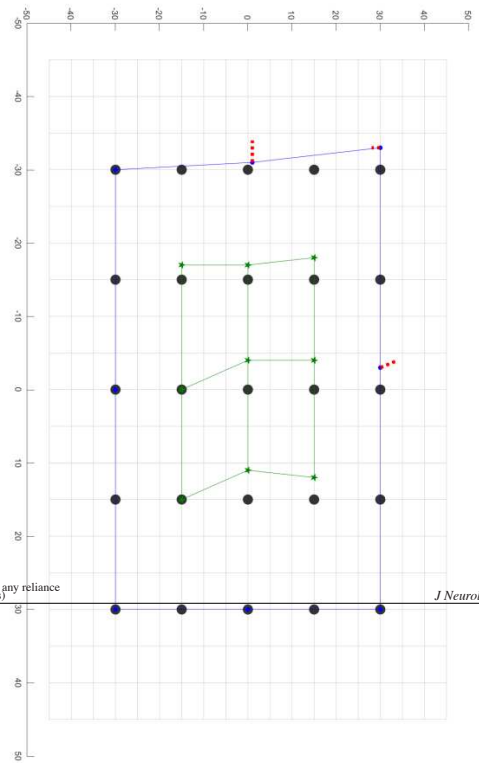


## Muscles left



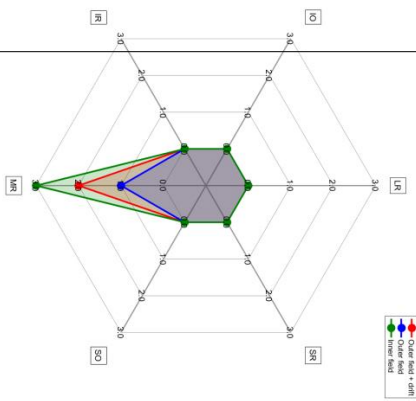
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## Hess chart left

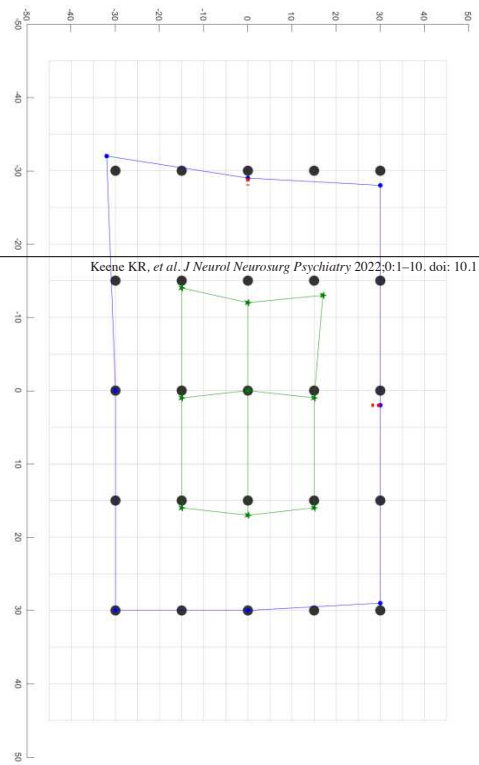


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## Muscles right



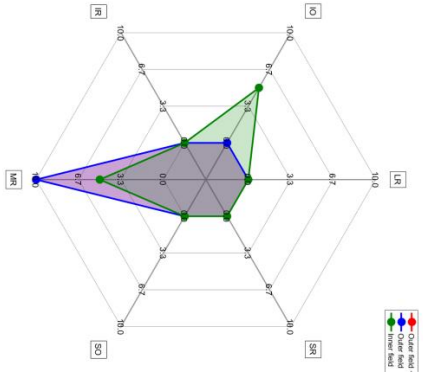
## Hess chart right



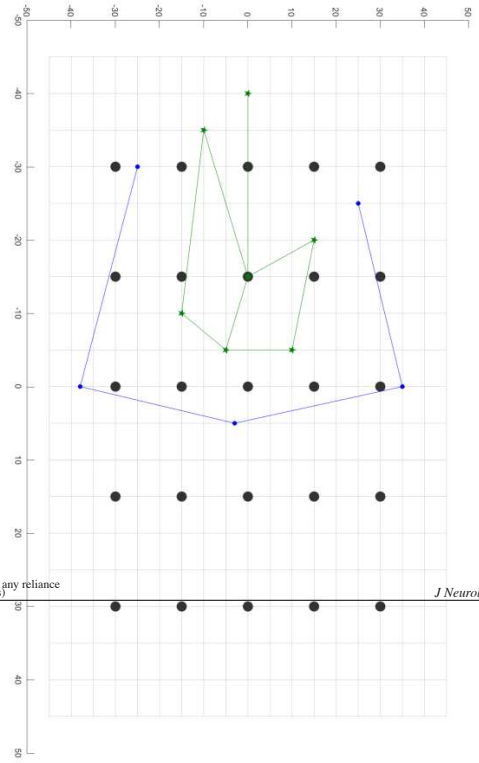
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Supplemental material

### Muscles left



### Hess chart left

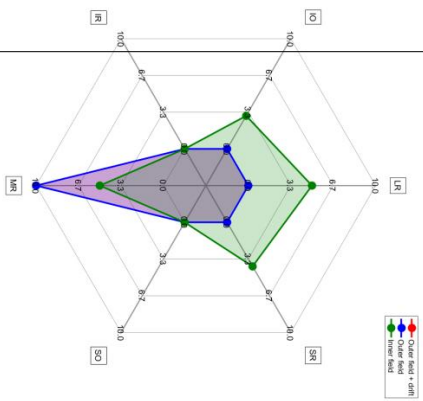


Supplemental material

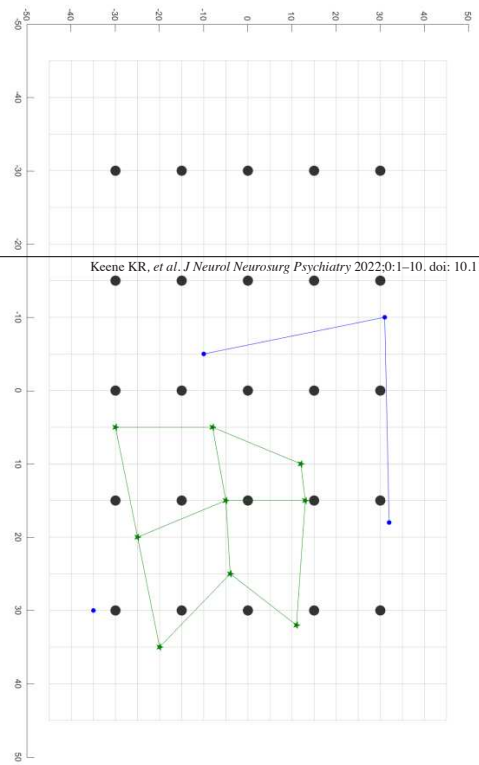
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### Muscles right



### Hess chart right

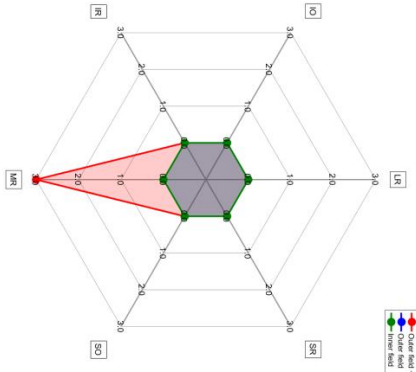


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

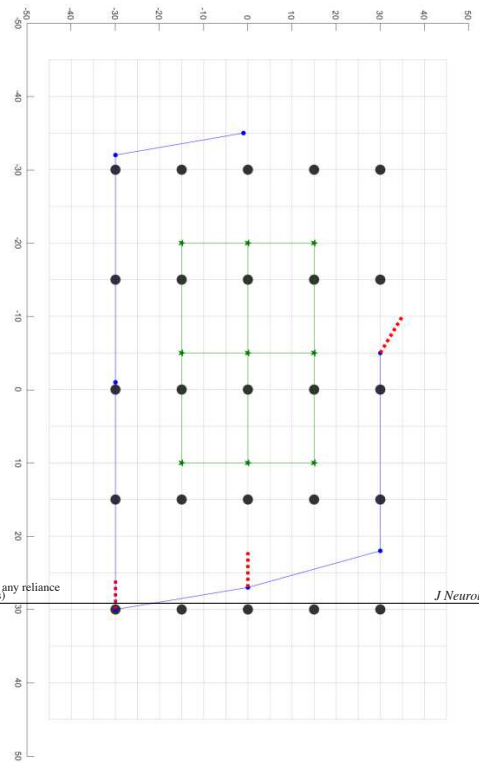
Patient number 22



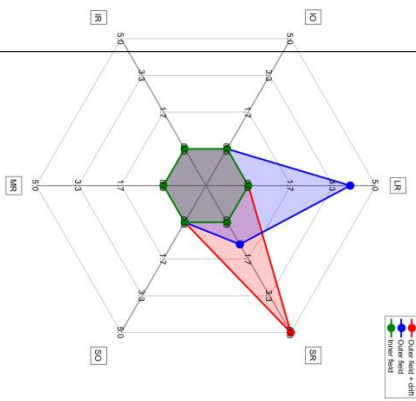
### Muscles left



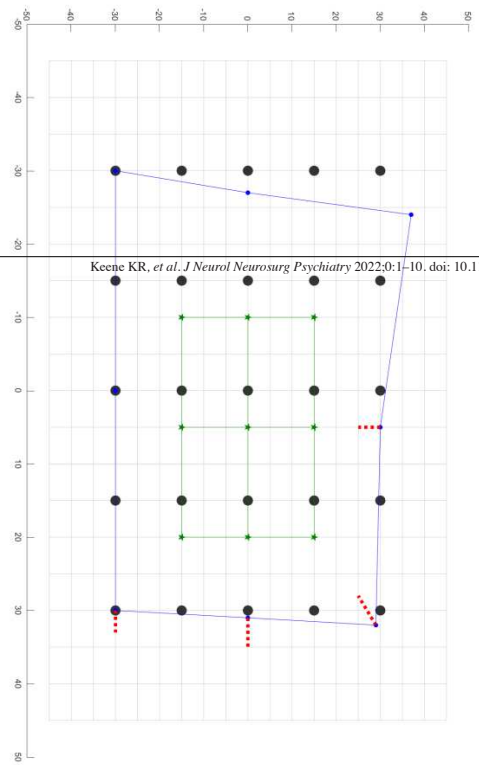
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

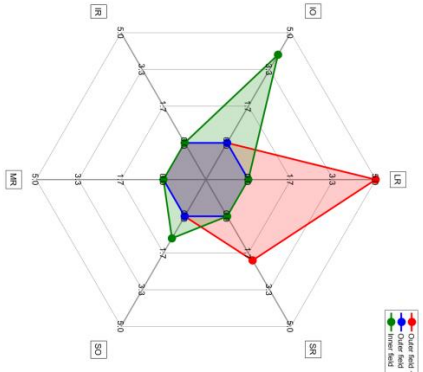
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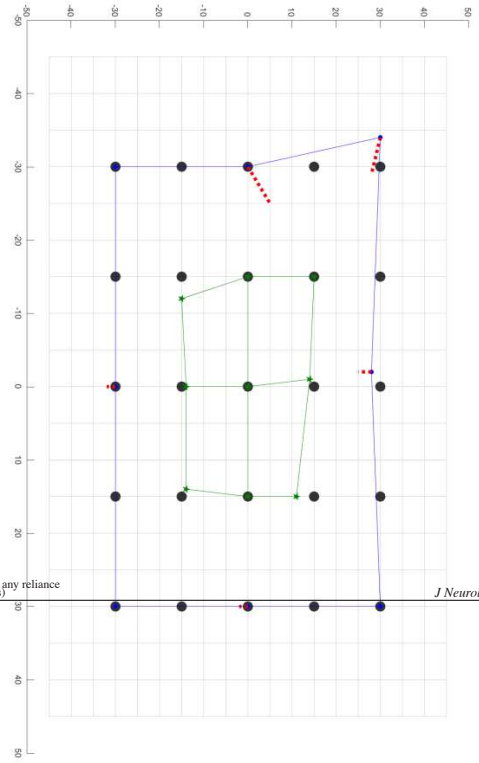
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 23

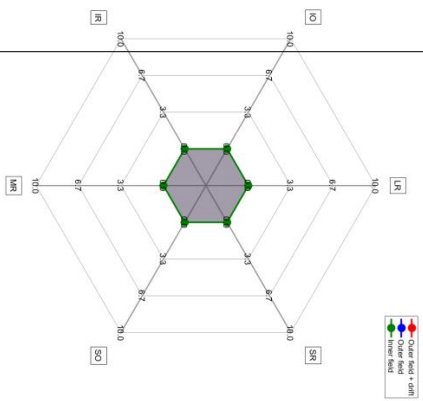
## Muscles left



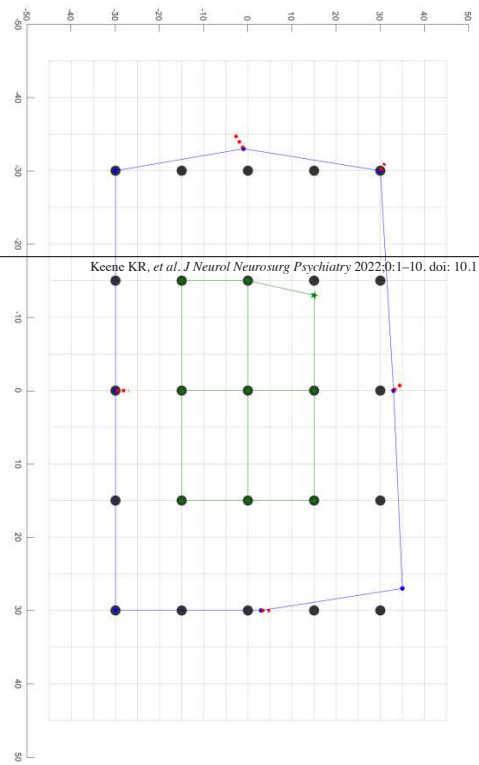
## Hess chart left



## Muscles right

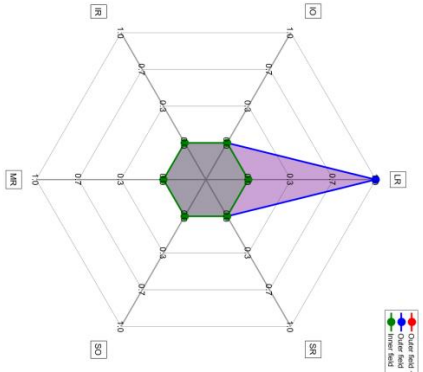


## Hess chart right

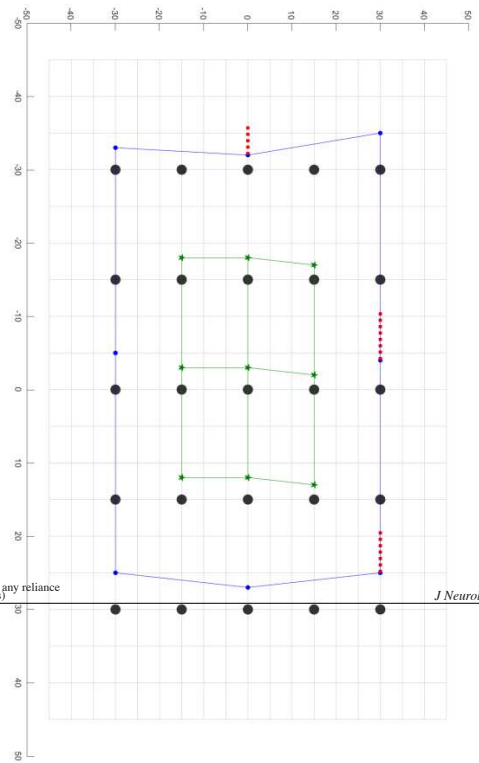




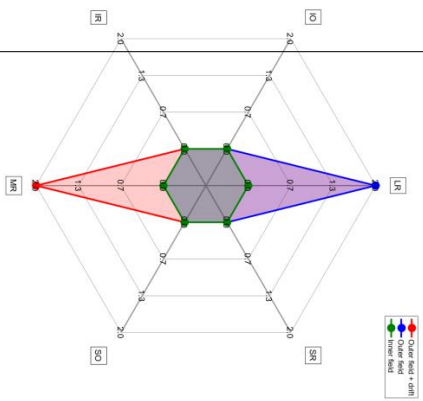
### Muscles left



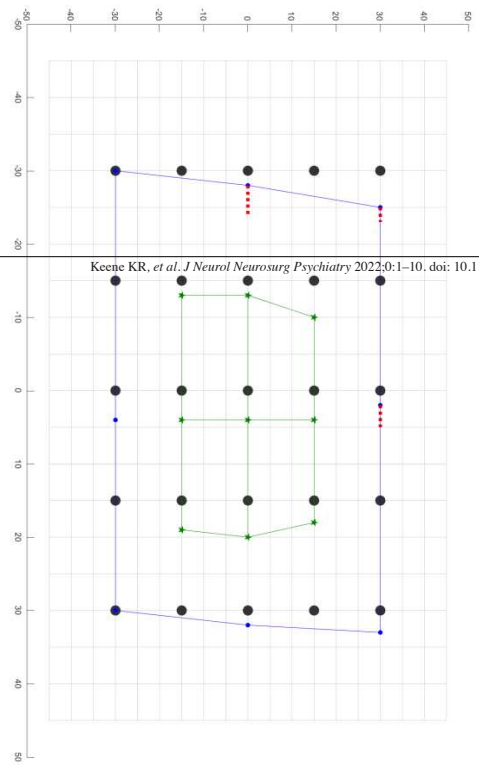
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

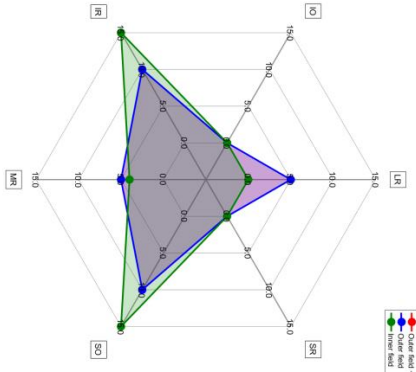
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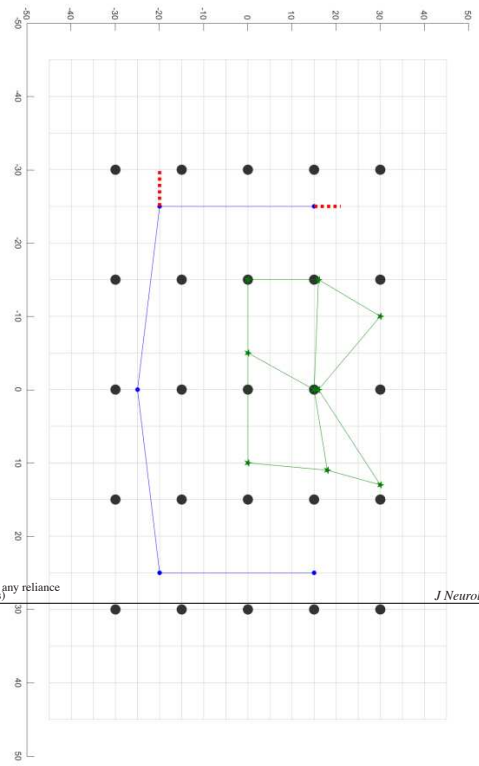
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 26

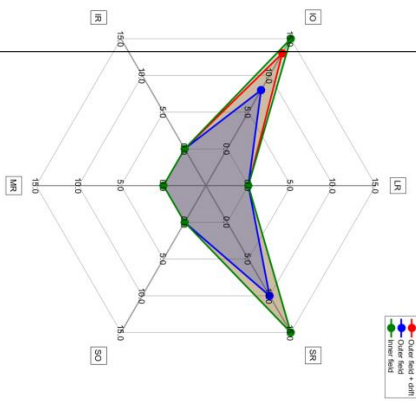
### Muscles left



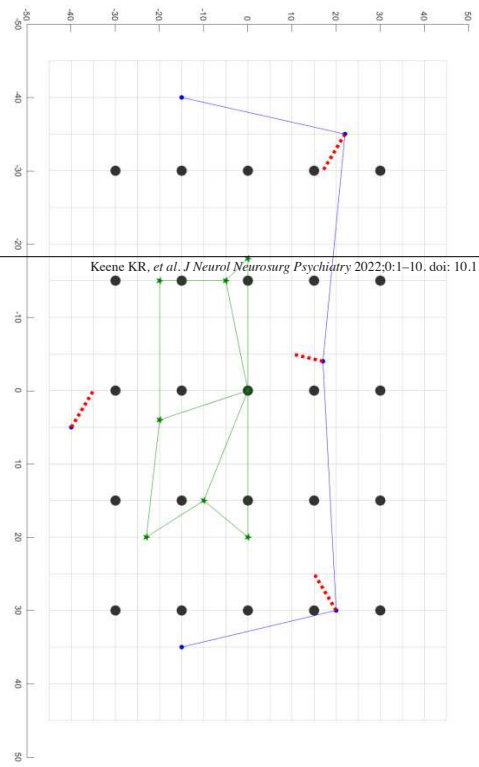
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

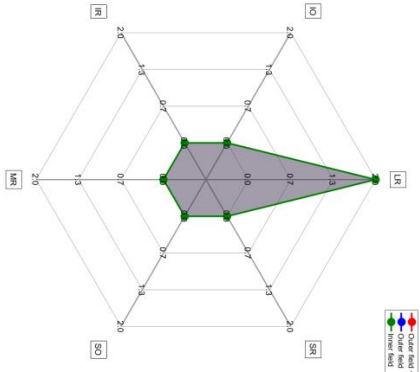
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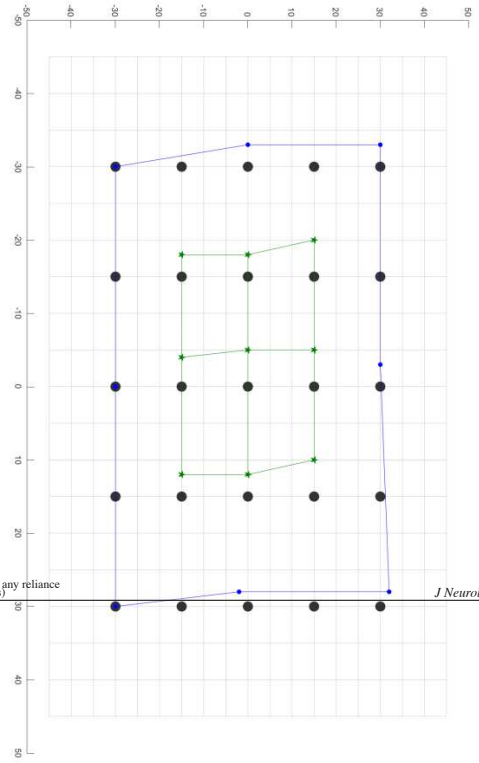
Patient number 27

### Muscles left



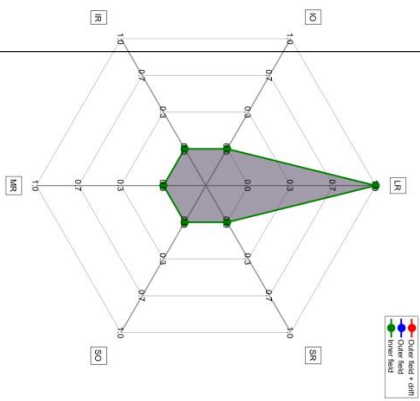
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### Hess chart left

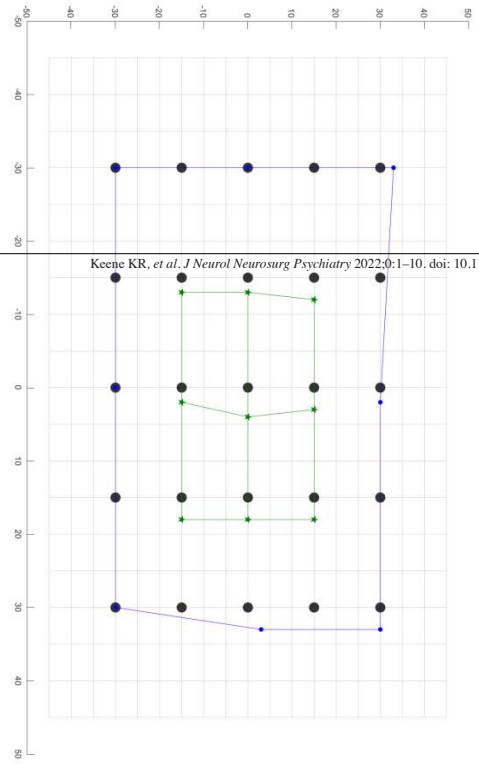


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### Muscles right



### Hess chart right

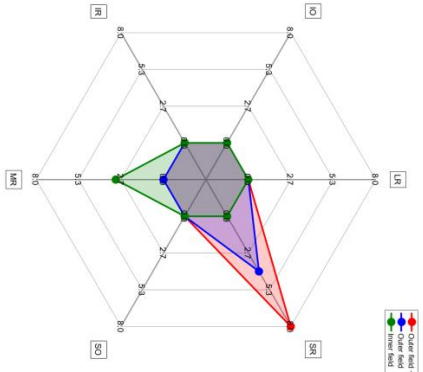


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

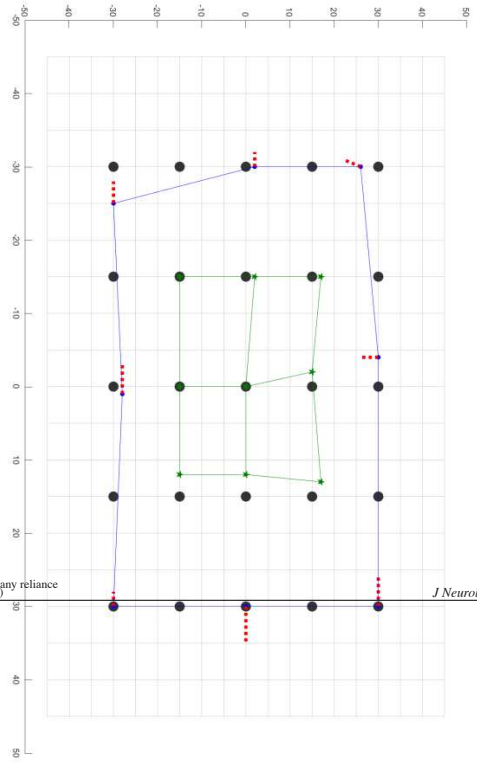
Patient number 28

## Muscles left



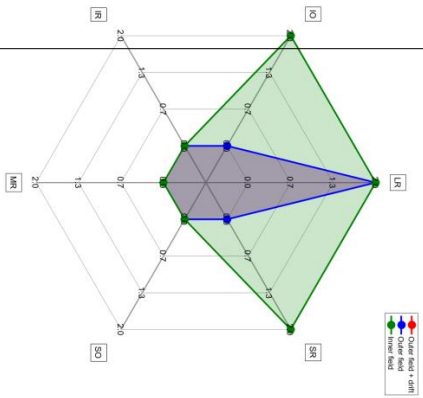
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## Hess chart left

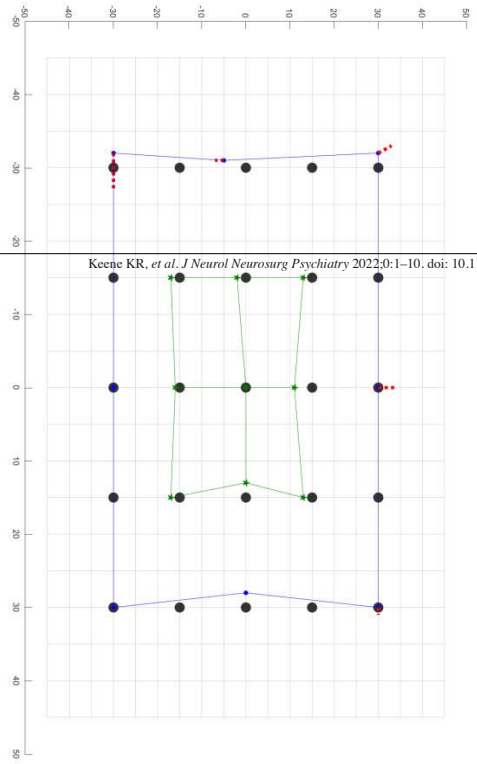


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## Muscles right



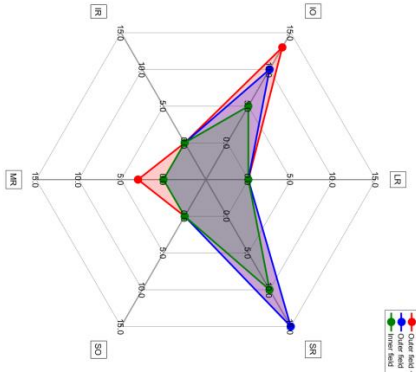
## Hess chart right



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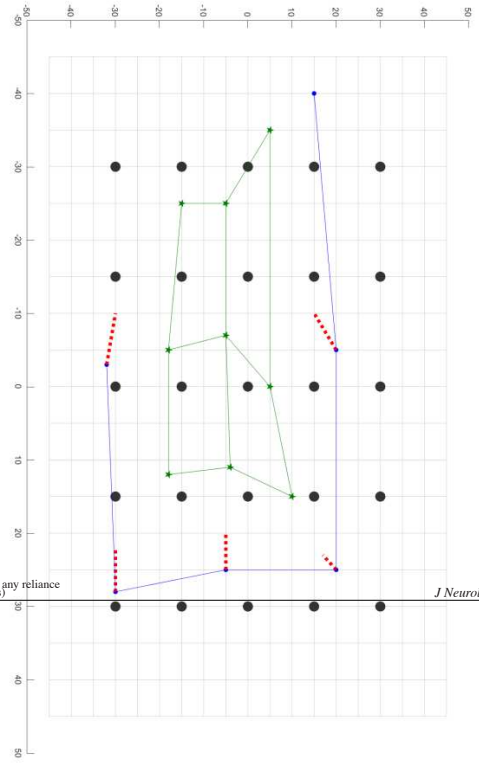
Supplemental material

## Muscles left



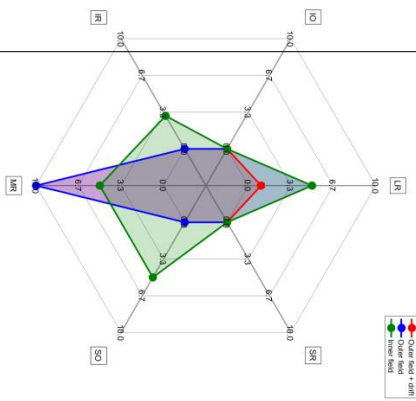
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## Hess chart left

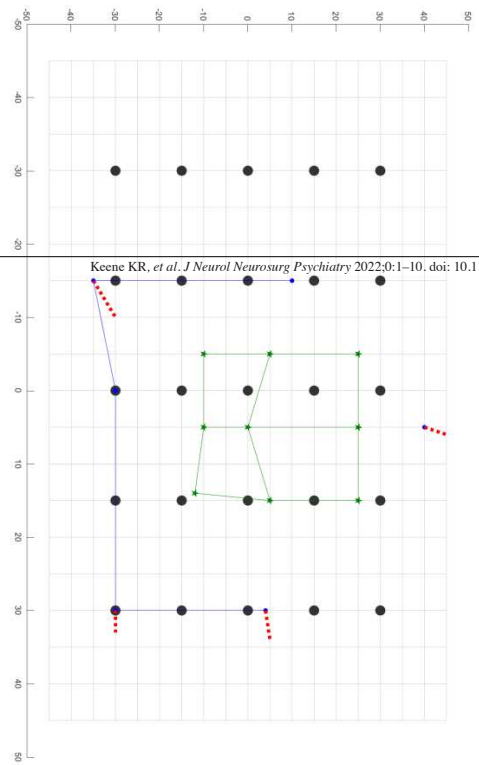


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## Muscles right



## Hess chart right



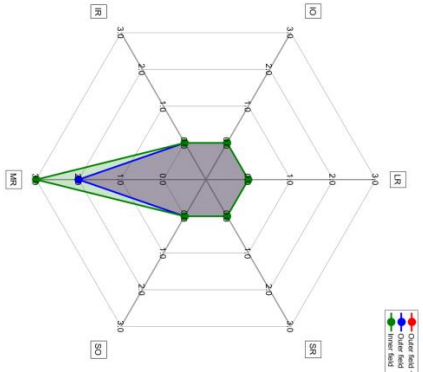
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Supplemental material

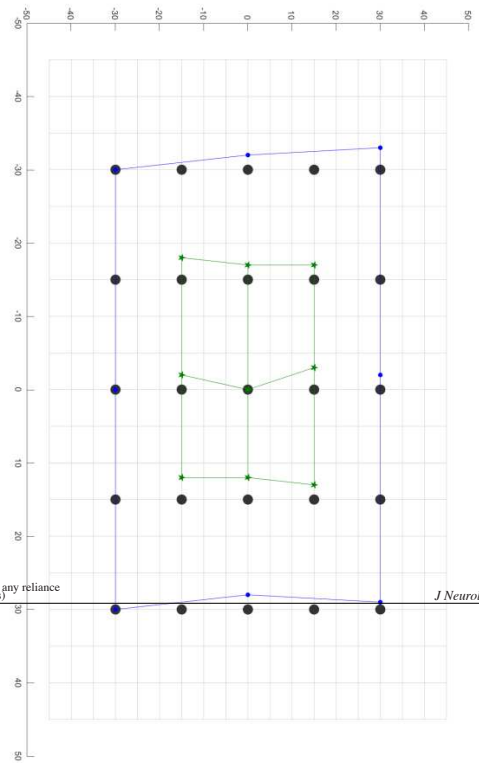
Patient number 30



### Muscles left



### Hess chart left

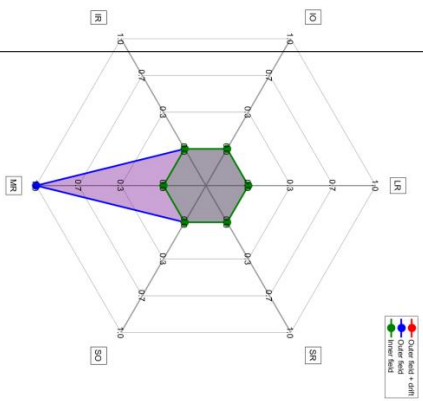


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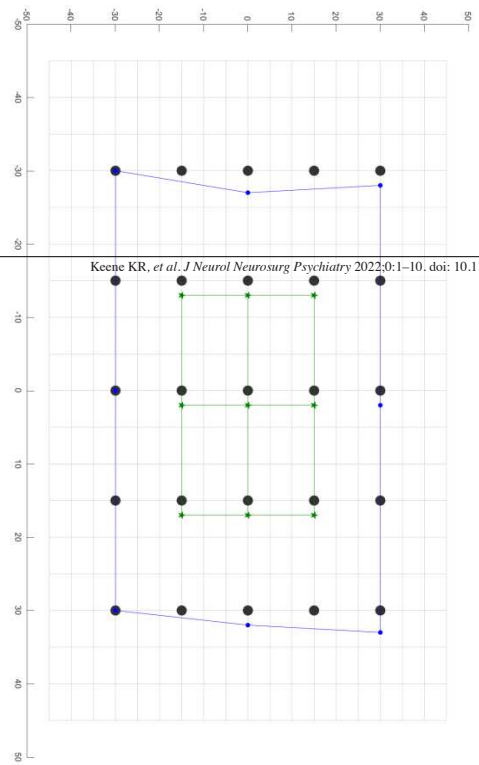
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### Muscles right



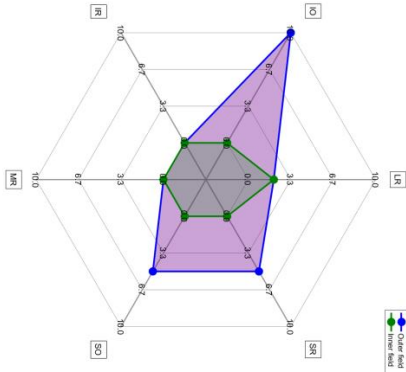
### Hess chart right



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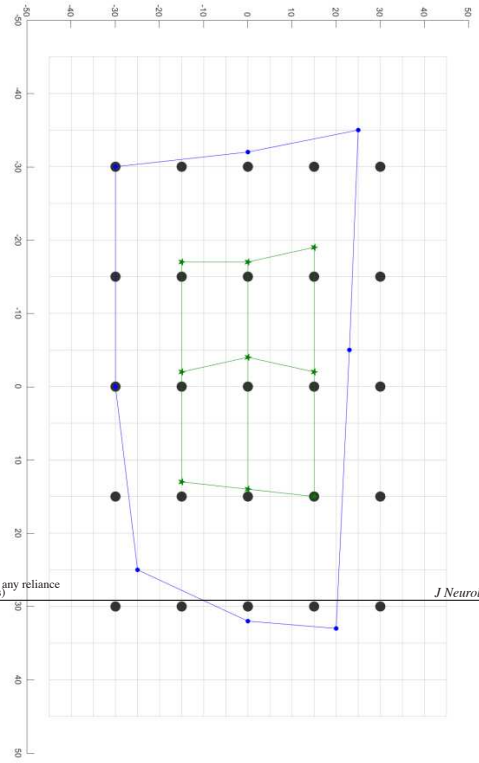
Patient number 31

### Muscles left



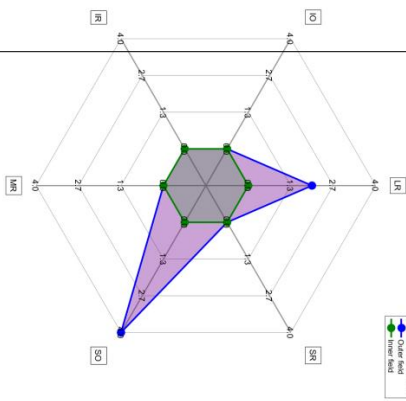
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### Hess chart left

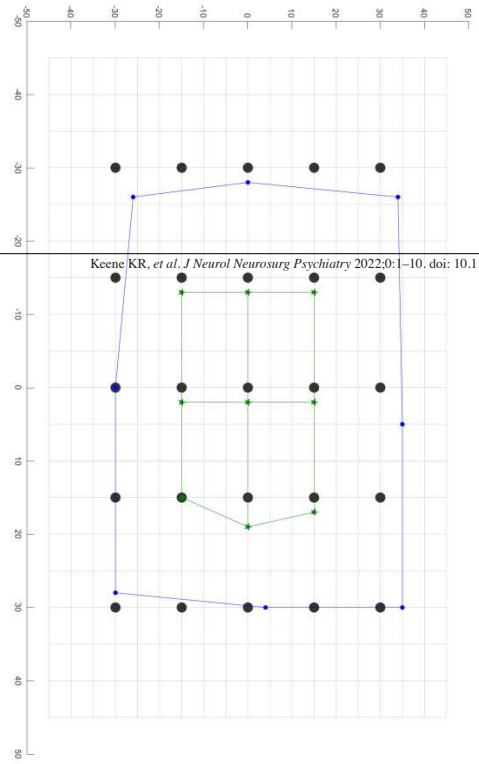


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### Muscles right



### Hess chart right

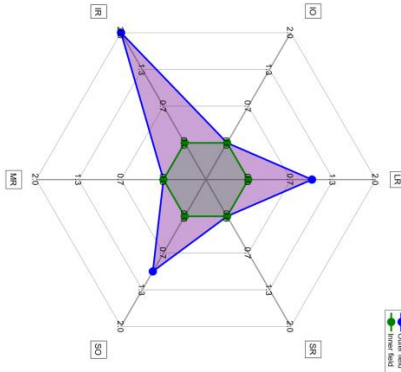


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

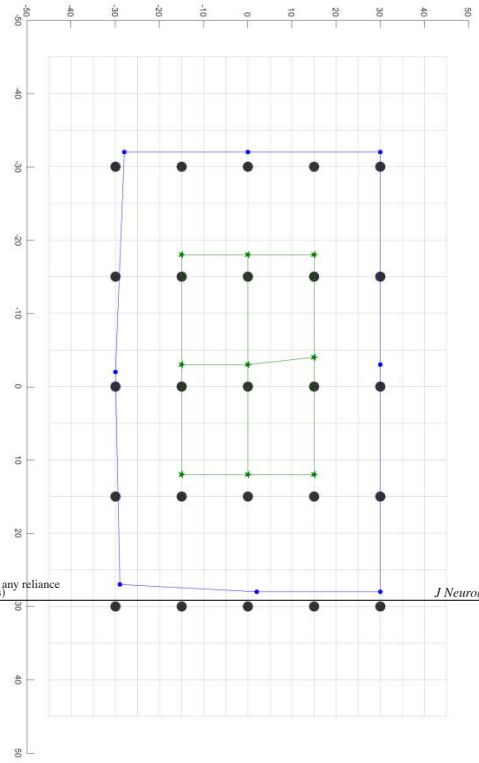
Patient number 32

### Muscles left

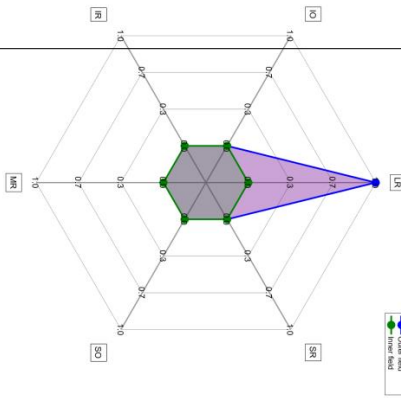


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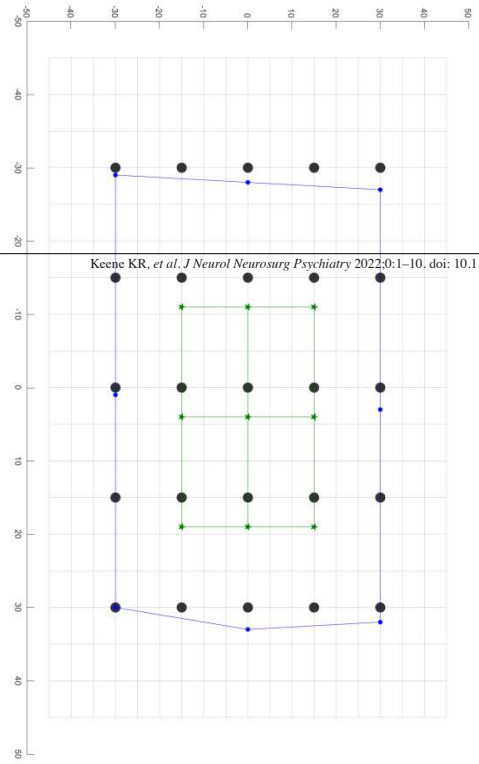
### Hess chart left



### Muscles right

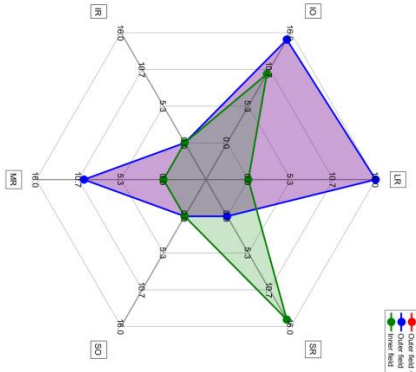


### Hess chart right

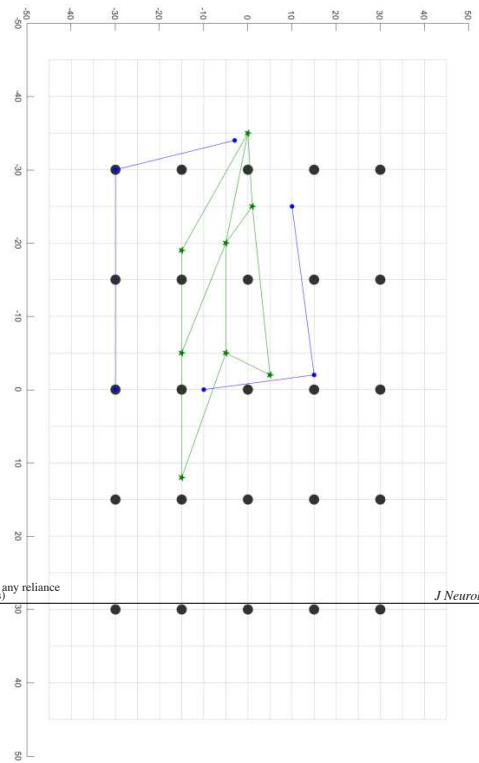


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

### Muscles left



### Hess chart left

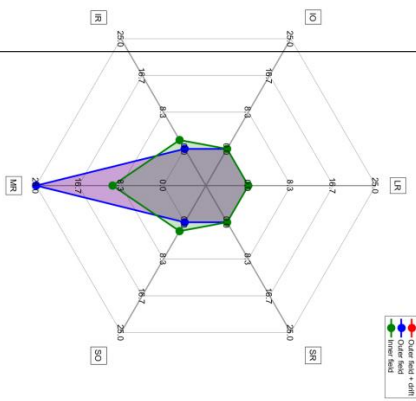


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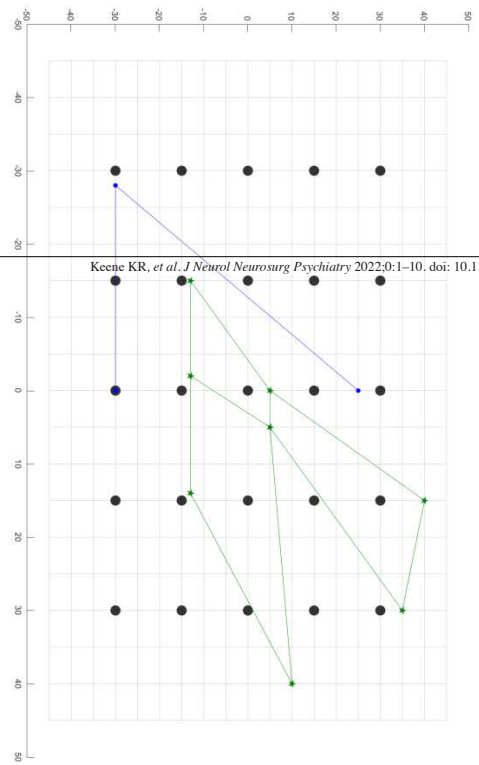
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### Muscles right



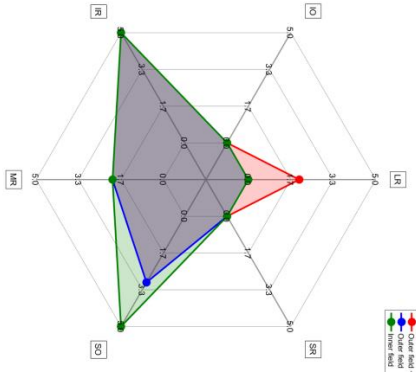
### Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

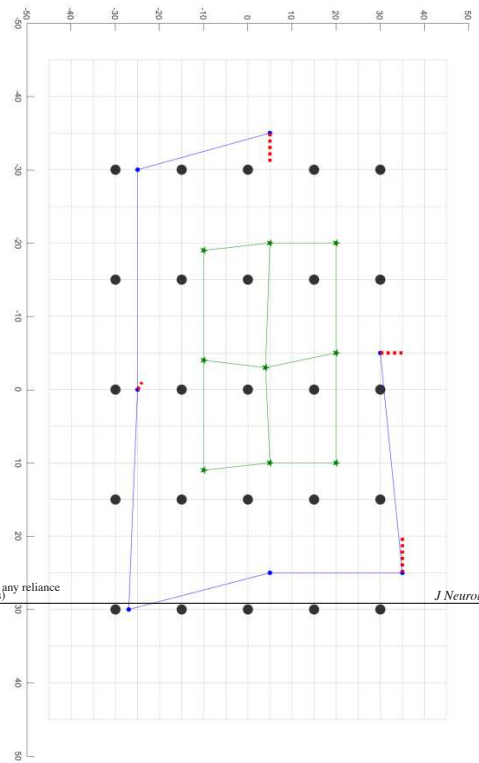
Patient number 34

## Muscles left



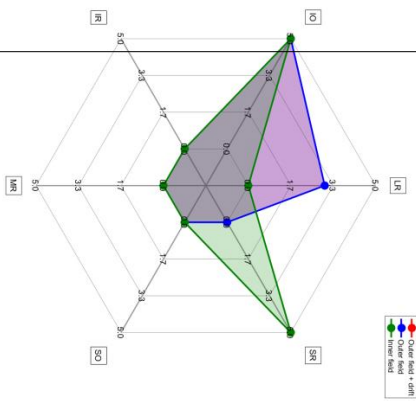
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## Hess chart left

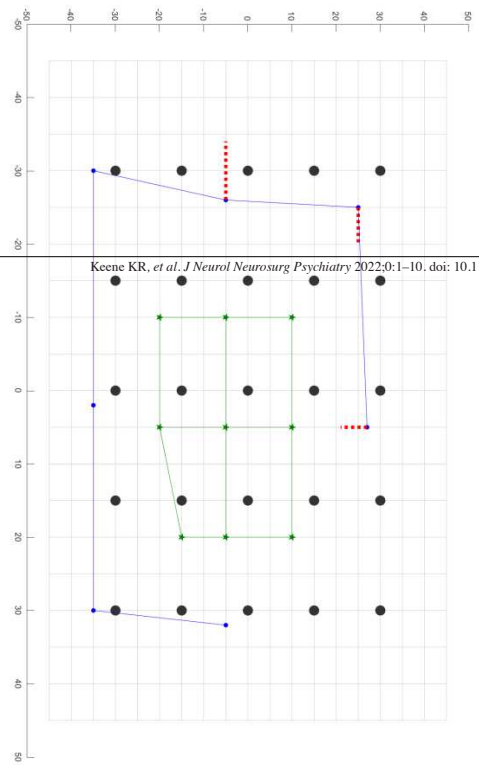


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## Muscles right



## Hess chart right

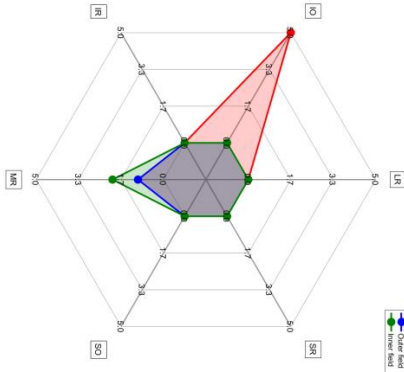


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

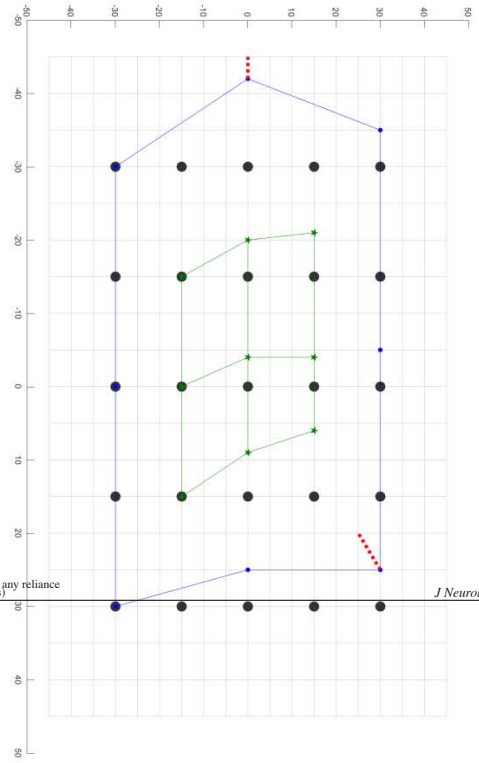
Supplemental material

Patient number 35

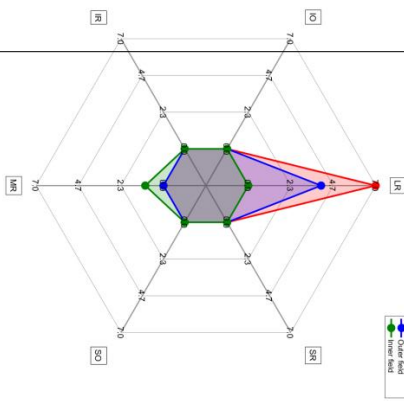
### Muscles left



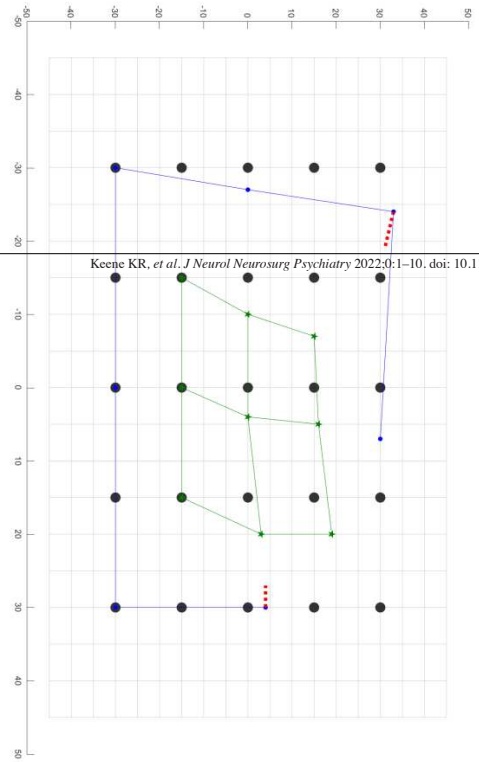
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

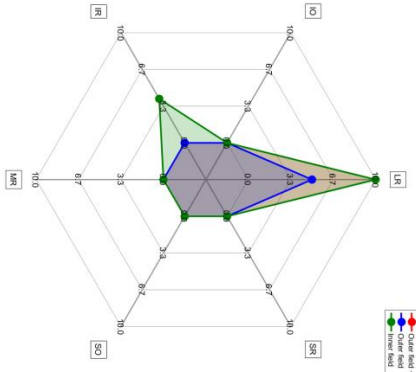
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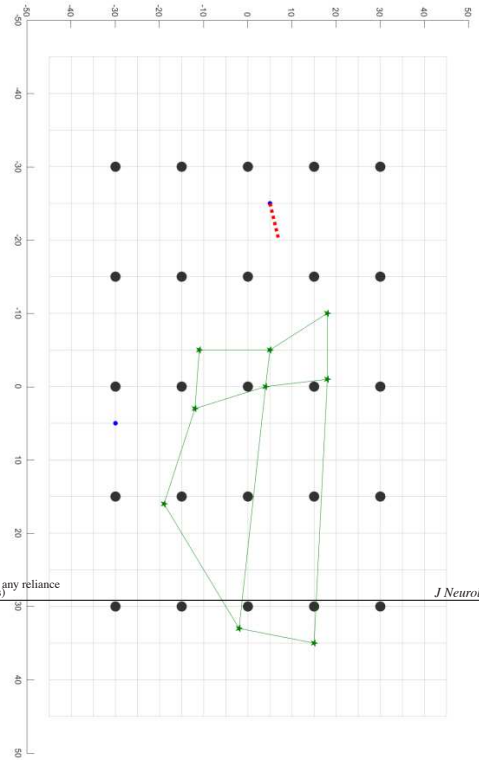
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 36

## Muscles left



## Hess chart left

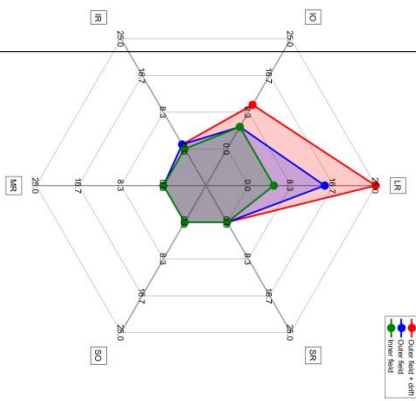


Supplemental material

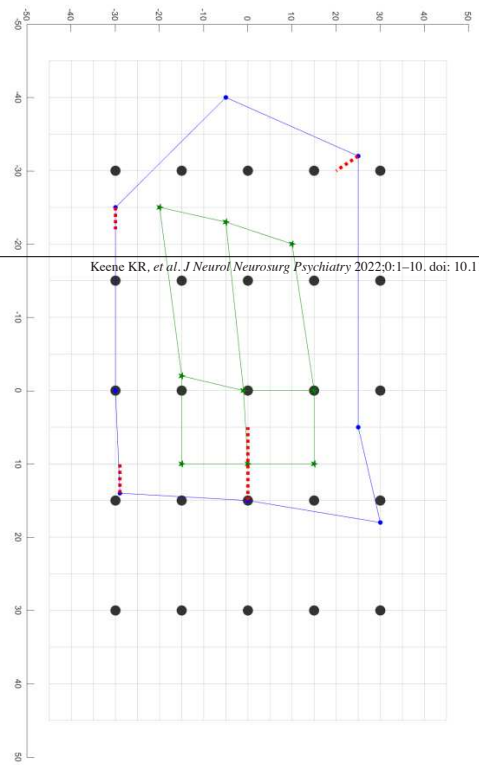
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## Muscles right



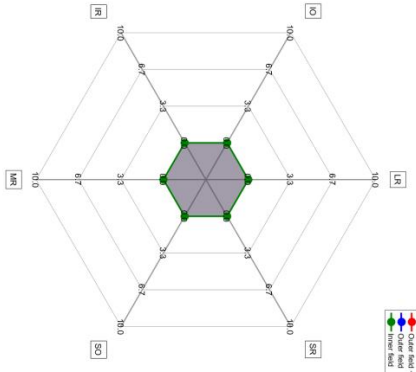
## Hess chart right



Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

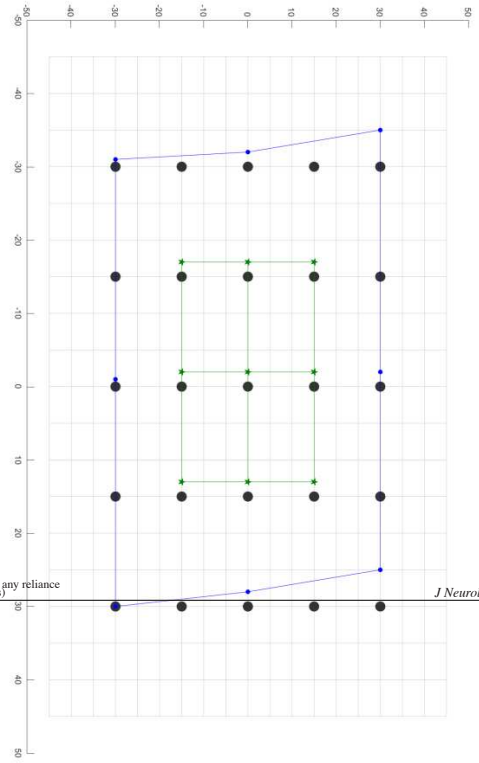
Patient number 37

### Muscles left



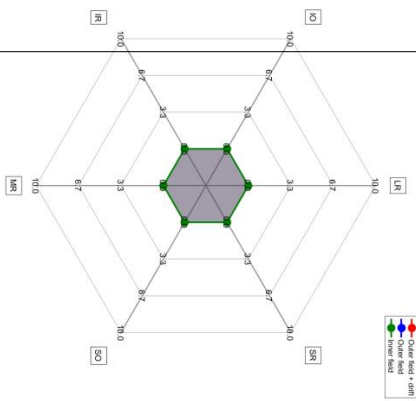
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### Hess chart left

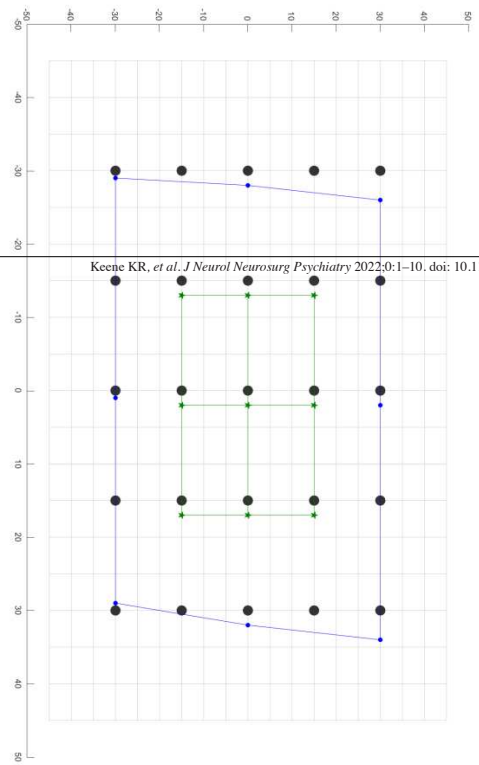


*J Neurol Neurosurg Psychiatry*

### Muscles right



### Hess chart right



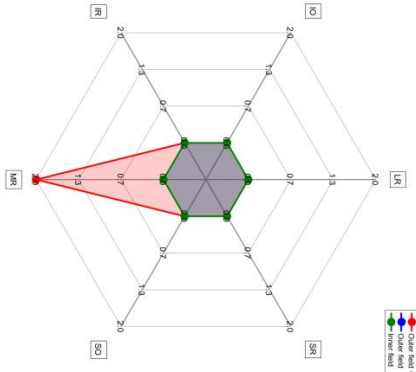
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Supplemental material

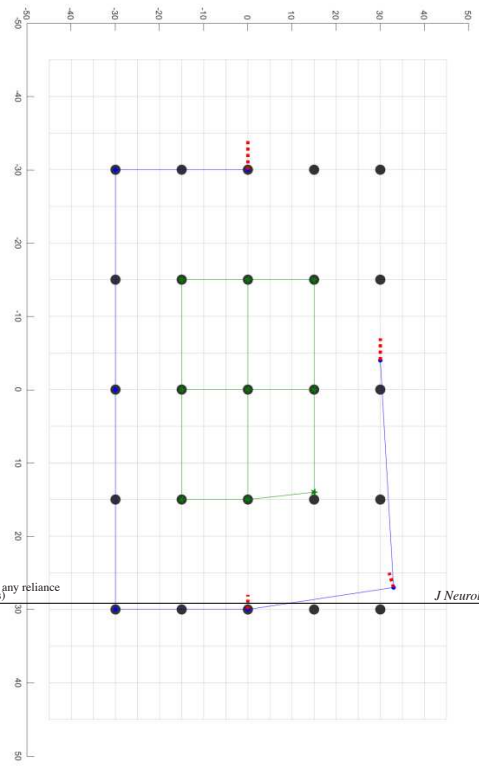
Patient number 38



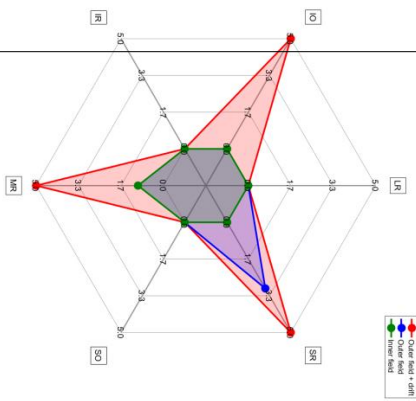
### Muscles left



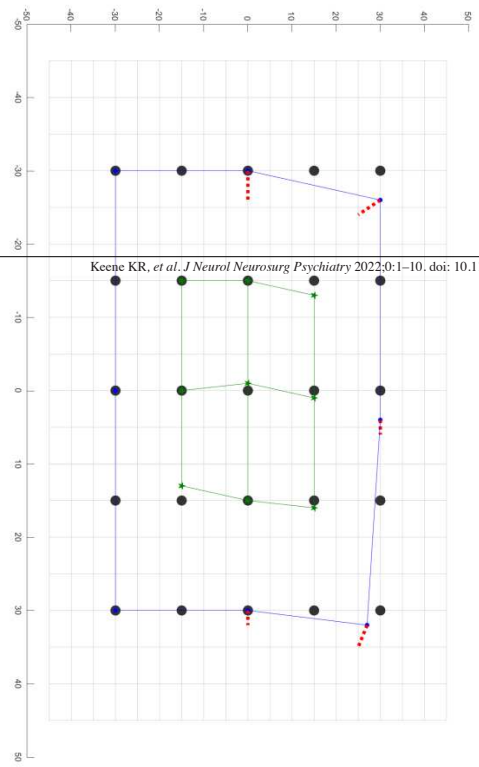
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

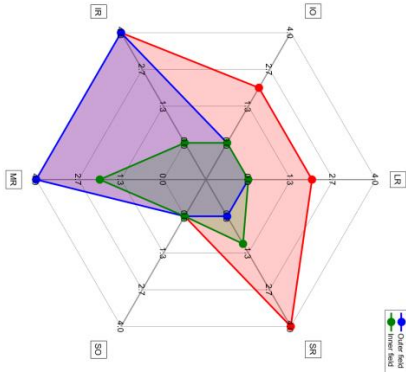
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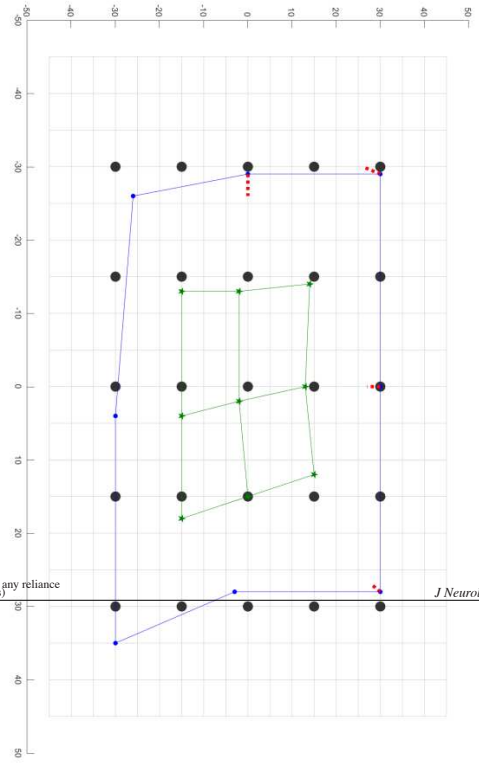
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 39

## Muscles left



## Hess chart left

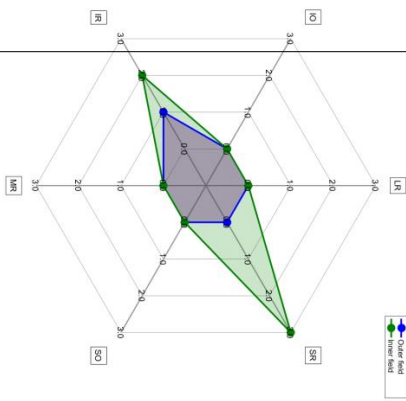


Supplemental material

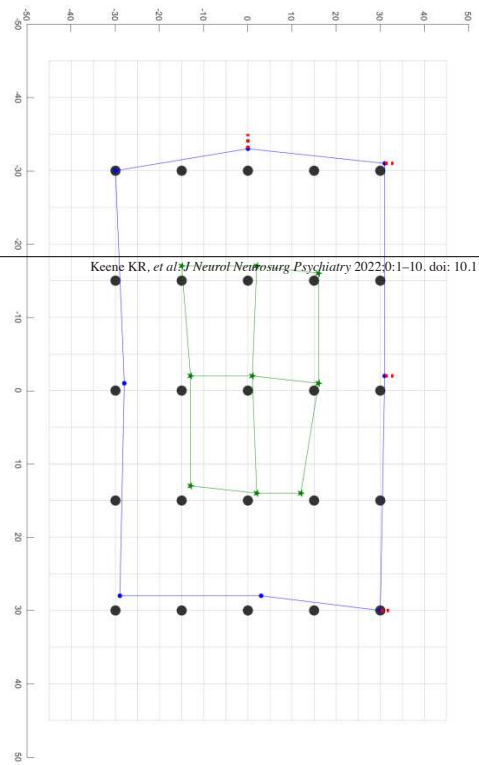
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J Neurol Neurosurg Psychiatry

## Muscles right



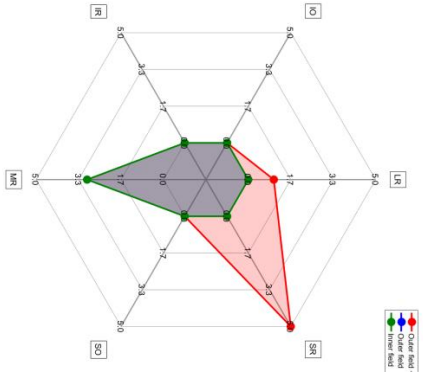
## Hess chart right



Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

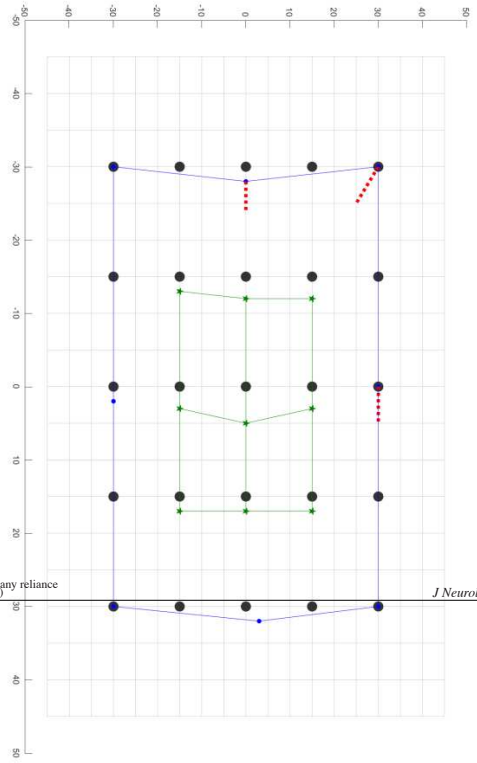
Patient number 40

## Muscles left



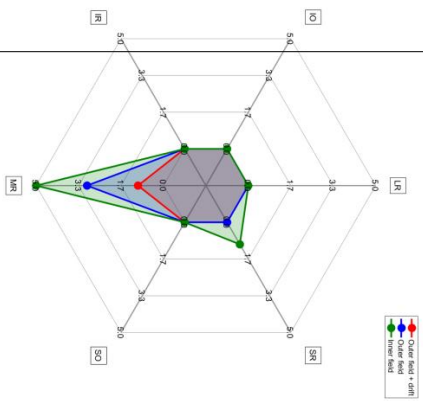
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## Hess chart left

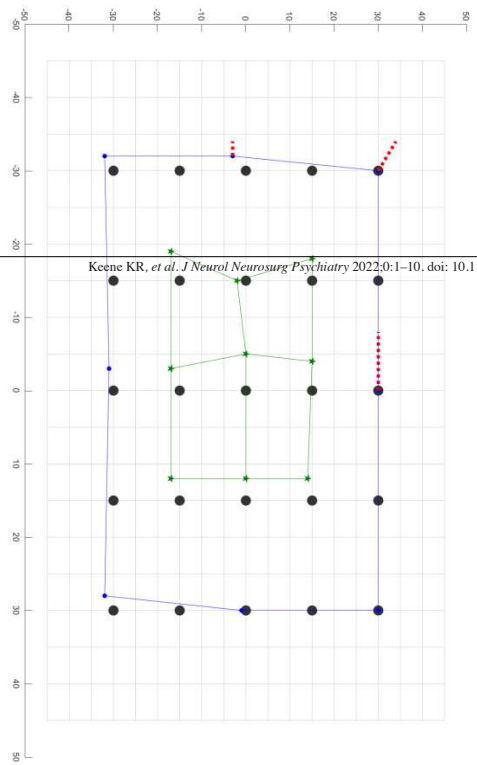


*J Neurol Neurosurg Psychiatry*

## Muscles right



## Hess chart right

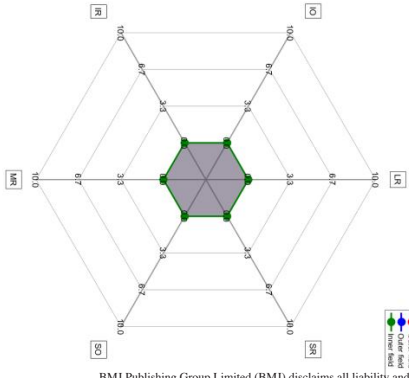


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Supplemental material

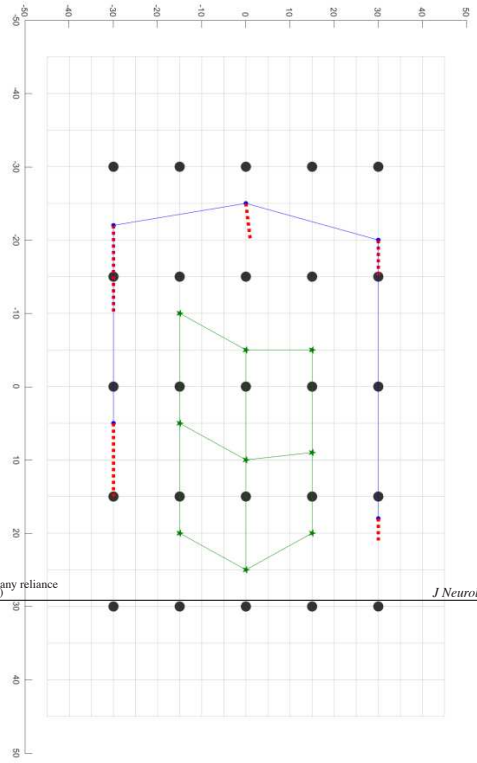
Patient number 41

## Muscles left



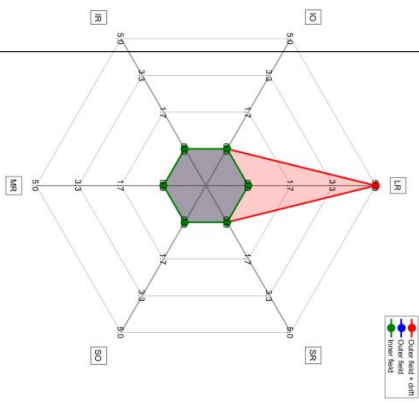
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## Hess chart left

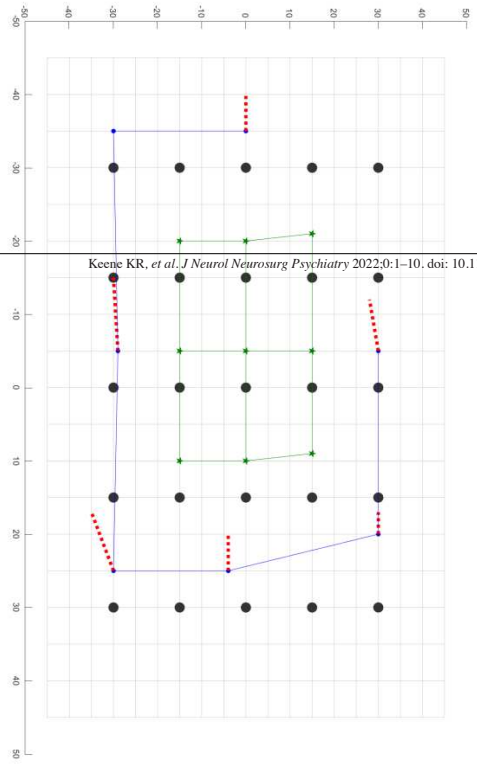


*J Neurol Neurosurg Psychiatry*

## Muscles right



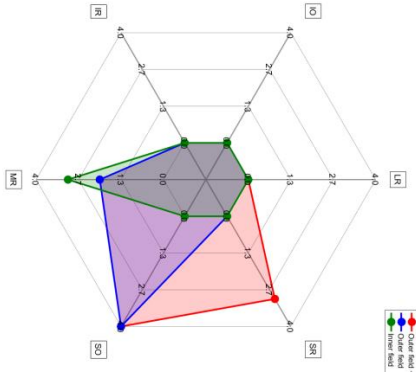
## Hess chart right



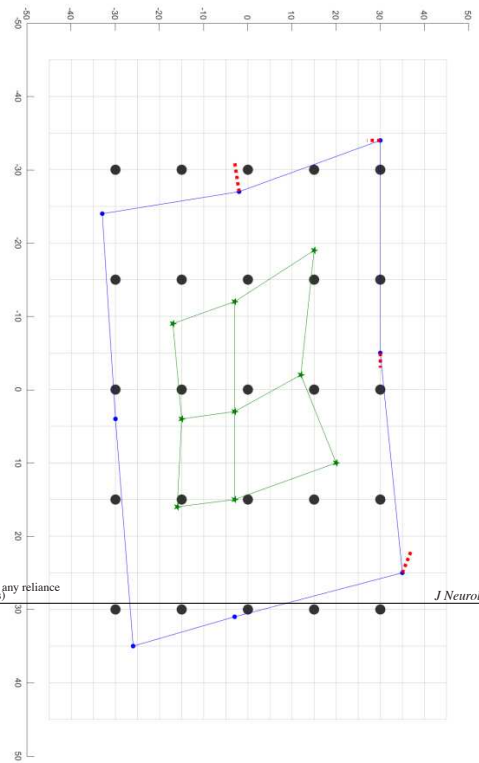
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Supplemental material

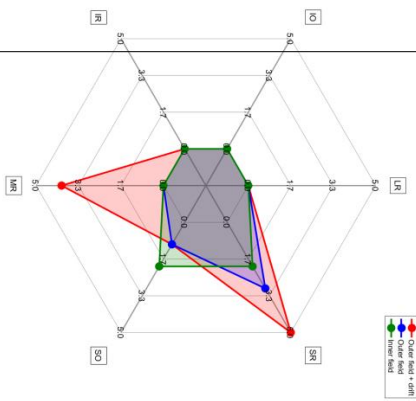
### Muscles left



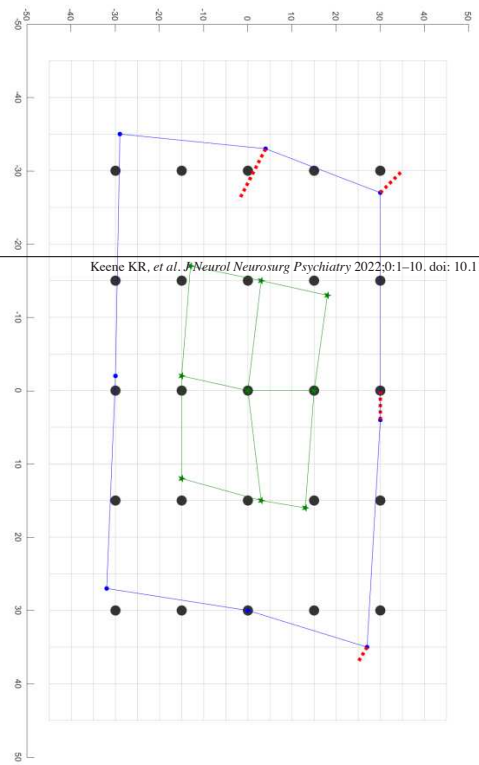
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

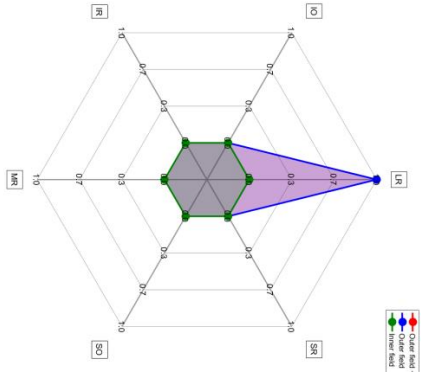
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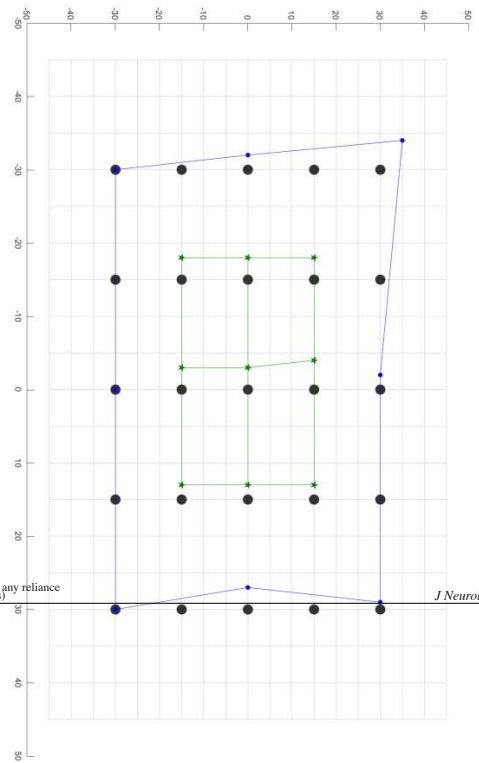
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 43

### Muscles left



### Hess chart left

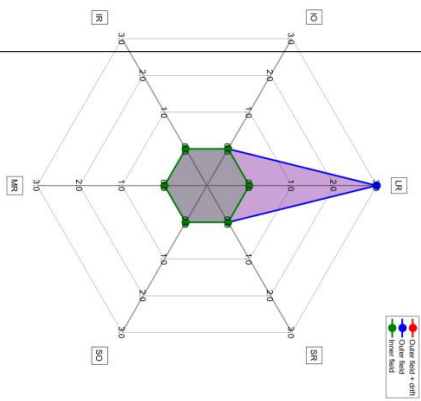


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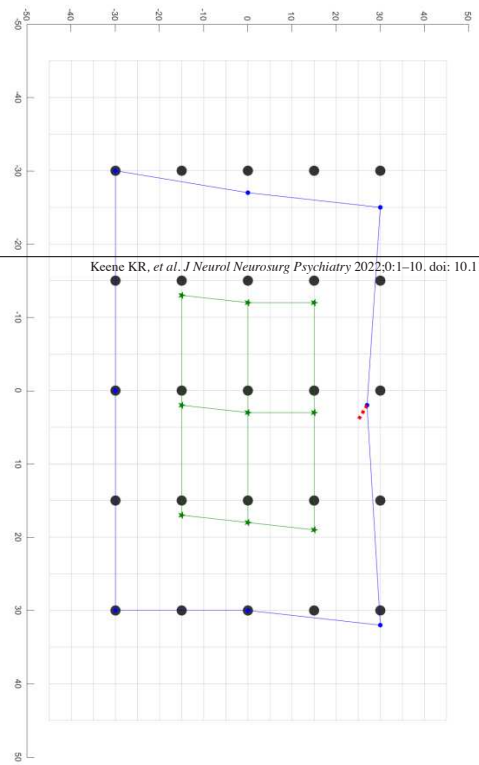
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### Muscles right



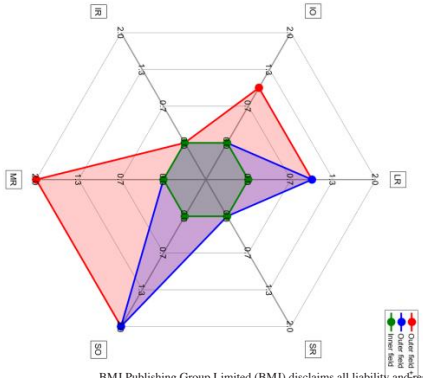
### Hess chart right



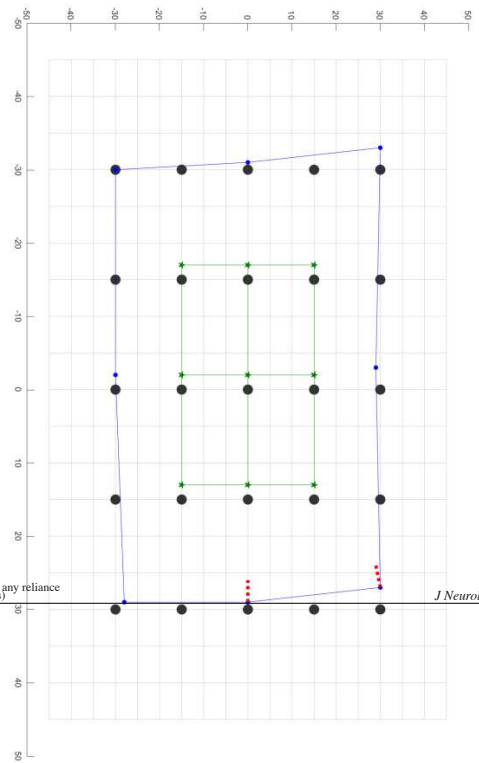
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 44

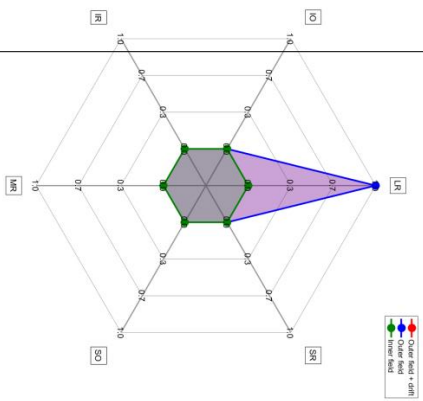
### Muscles left



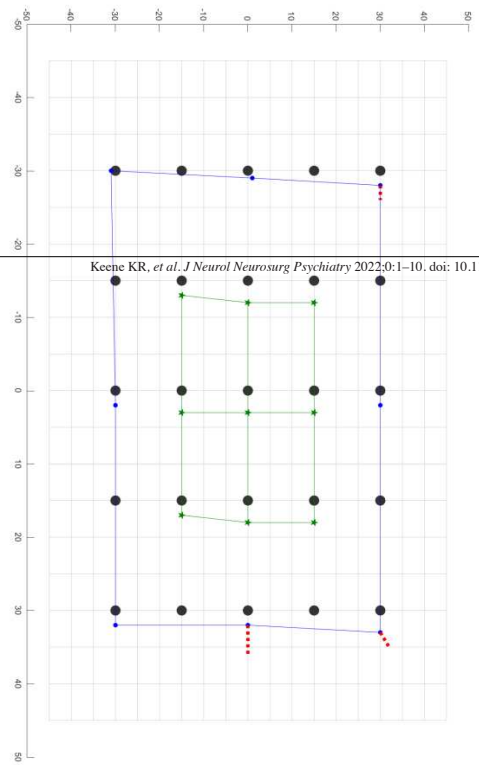
### Hess chart left



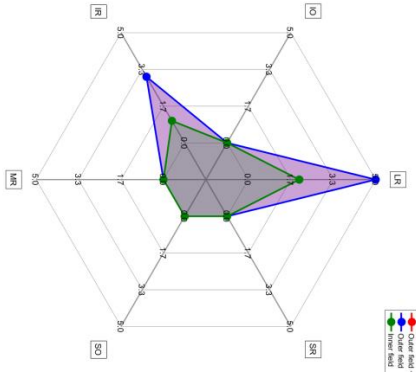
### Muscles right



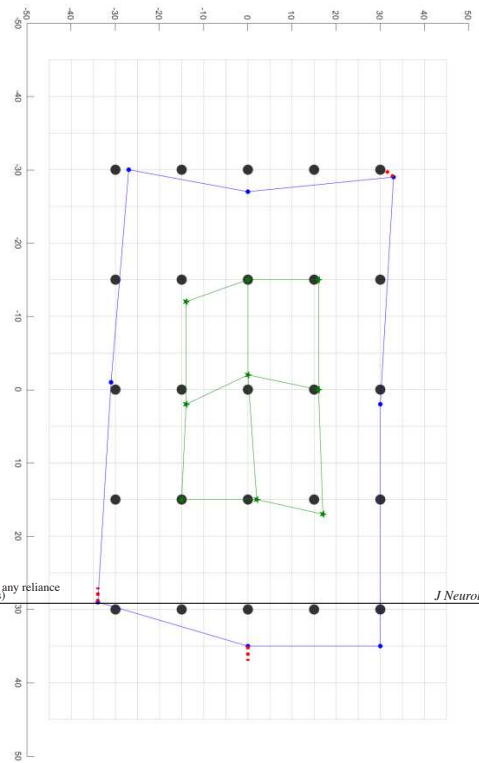
### Hess chart right



### Muscles left



### Hess chart left

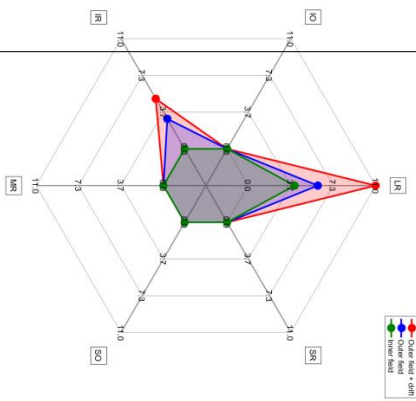


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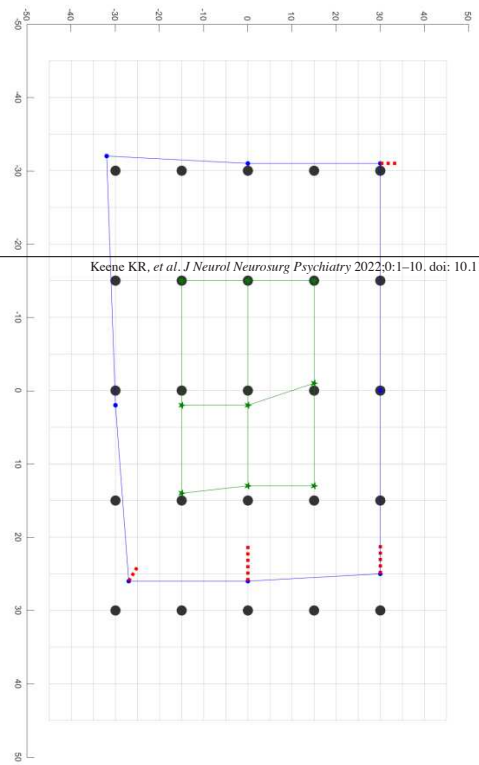
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### Muscles right



### Hess chart right

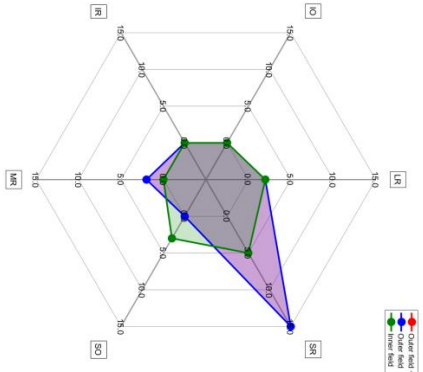


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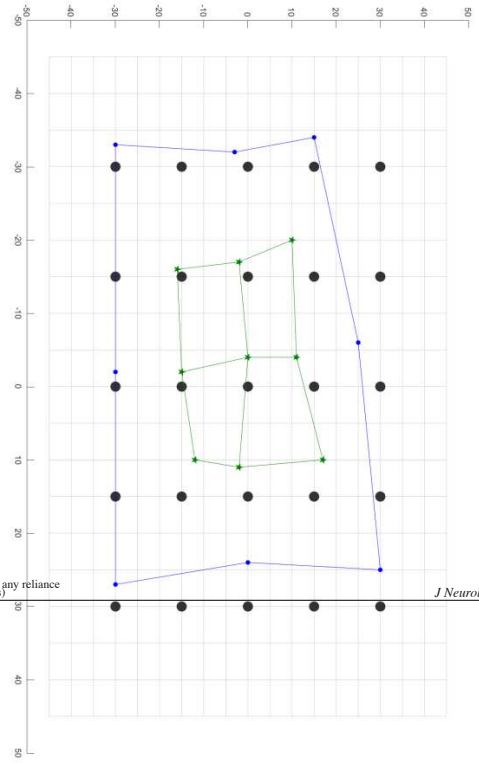
Patient number 46



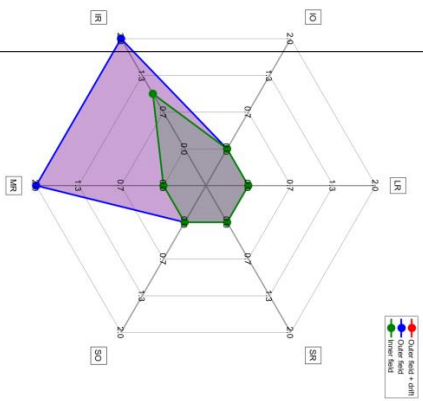
### Muscles left



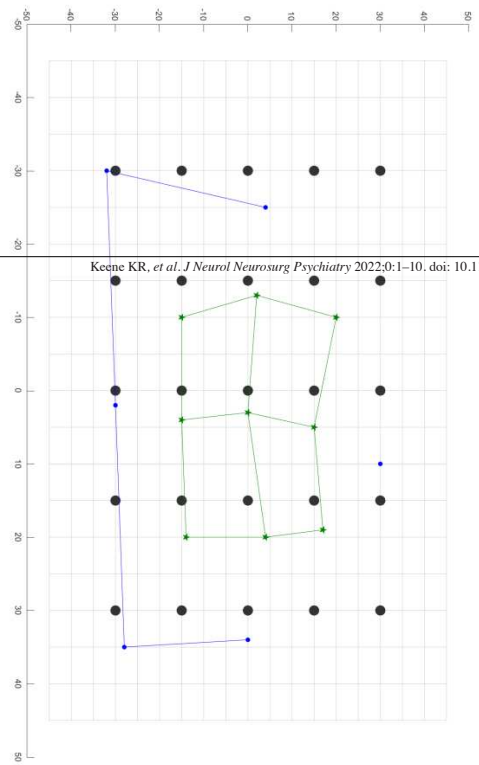
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

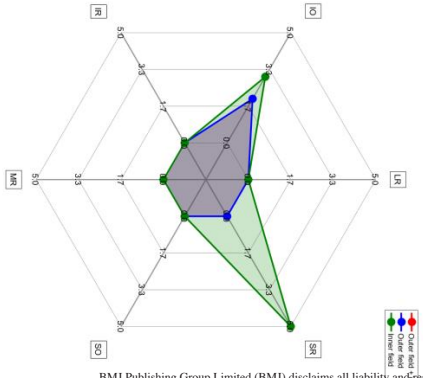
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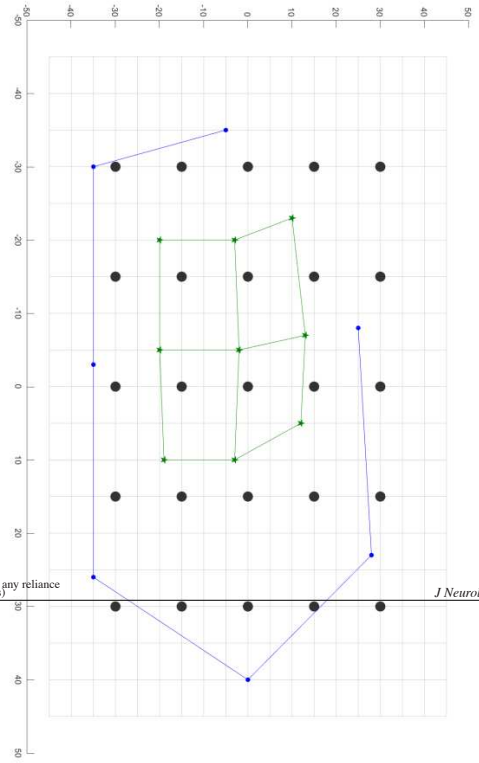
**Patient number 47**

## Muscles left



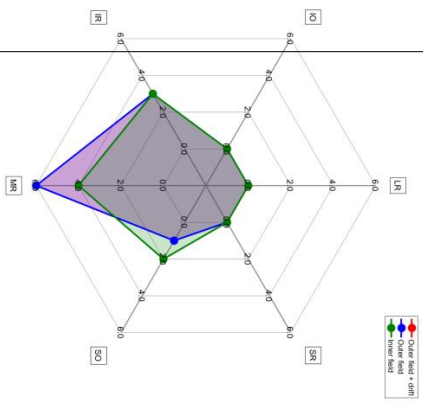
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## Hess chart left

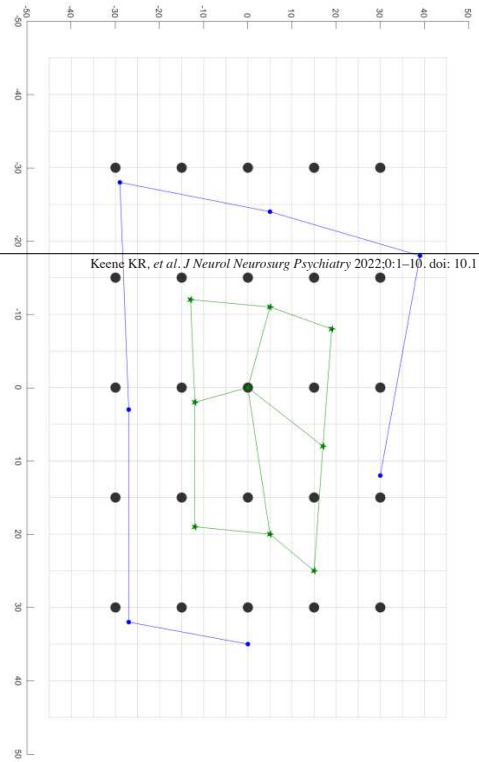


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## Muscles right



## Hess chart right

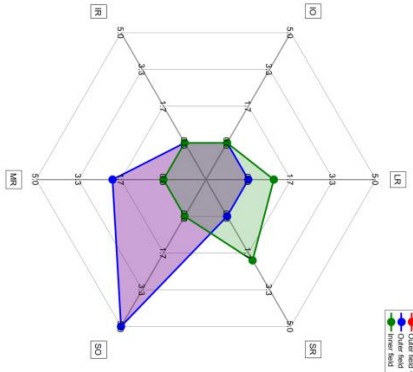


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

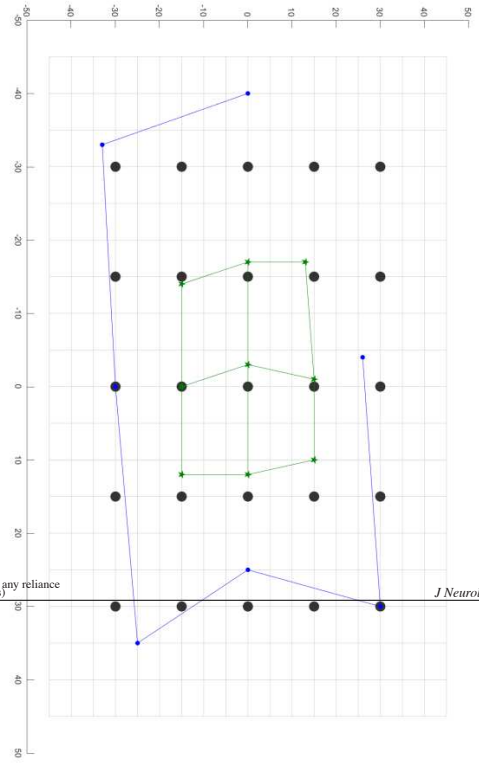
Supplemental material

Patient number 48

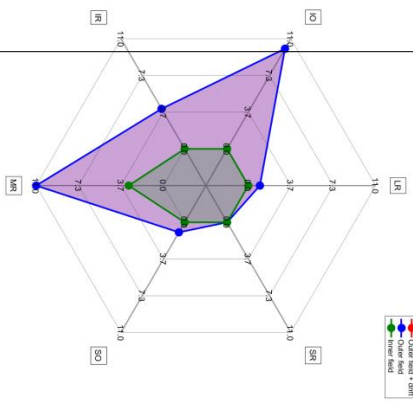
### Muscles left



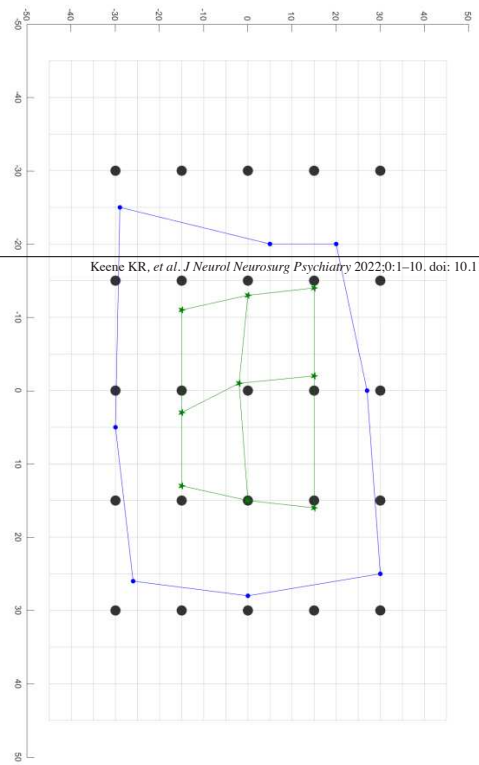
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

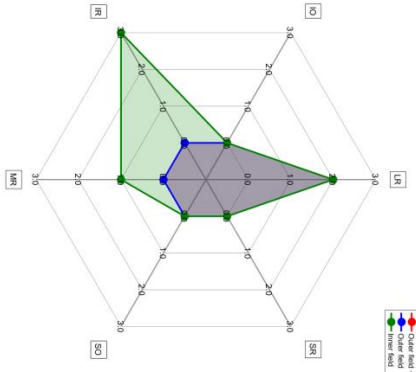
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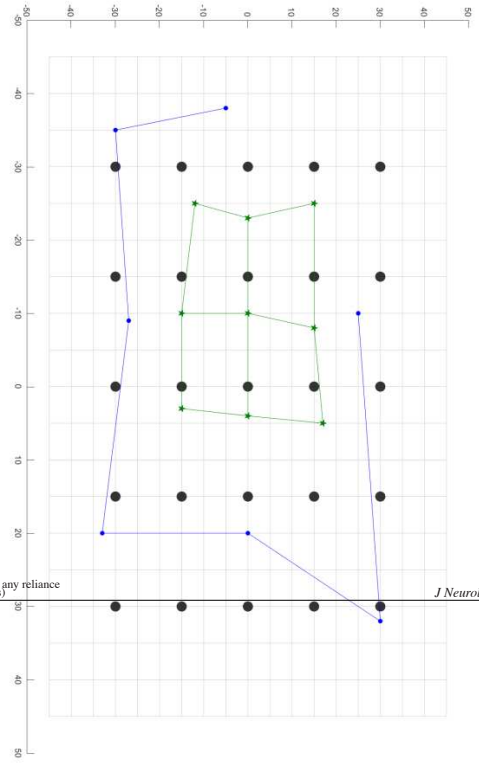
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 49

### Muscles left



### Hess chart left

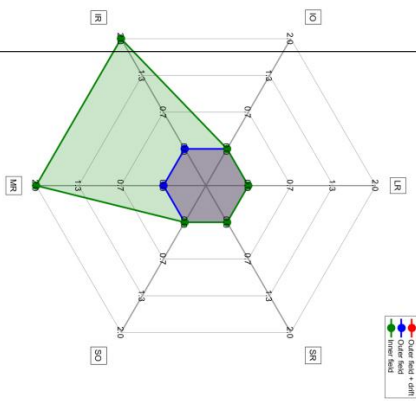


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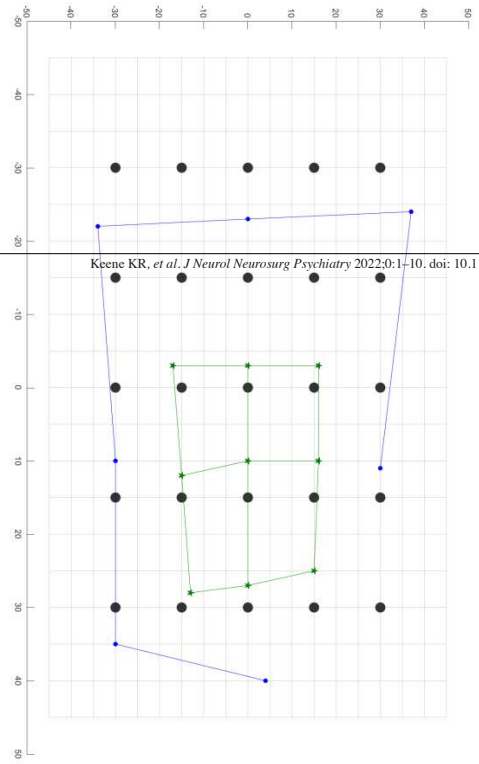
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### Muscles right



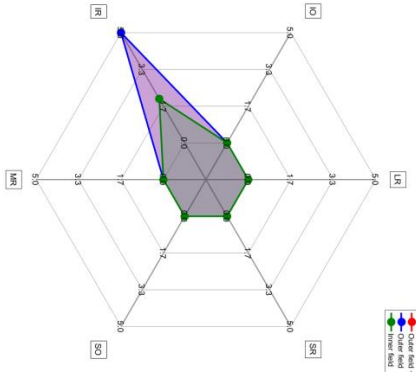
### Hess chart right



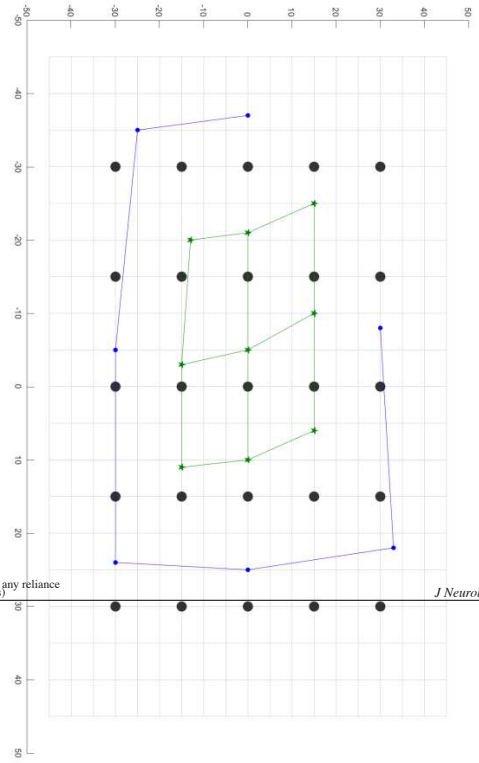
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 50

### Muscles left



### Hess chart left

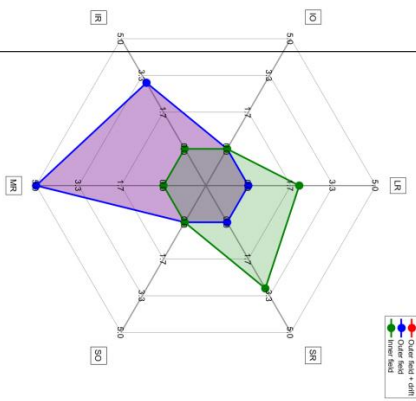


Supplemental material

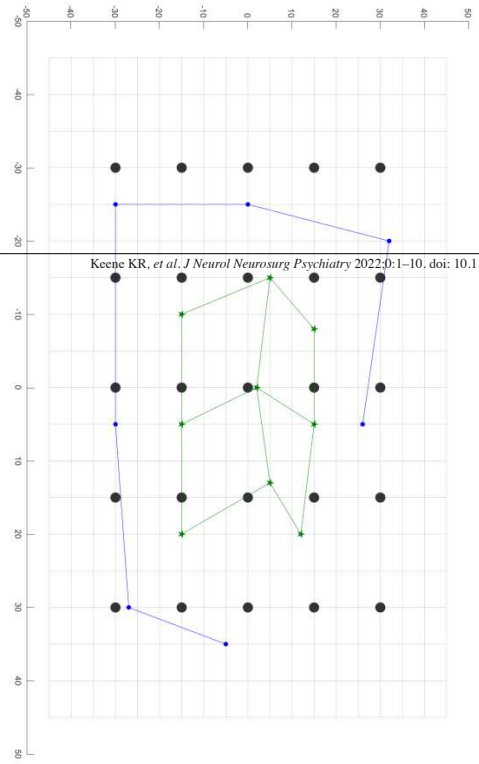
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### Muscles right



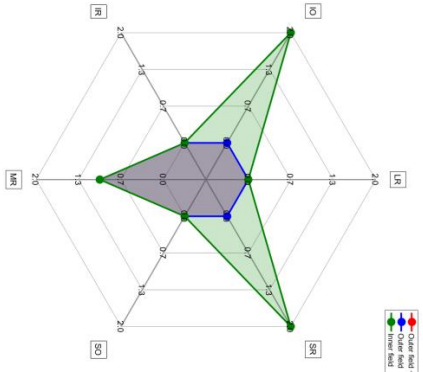
### Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

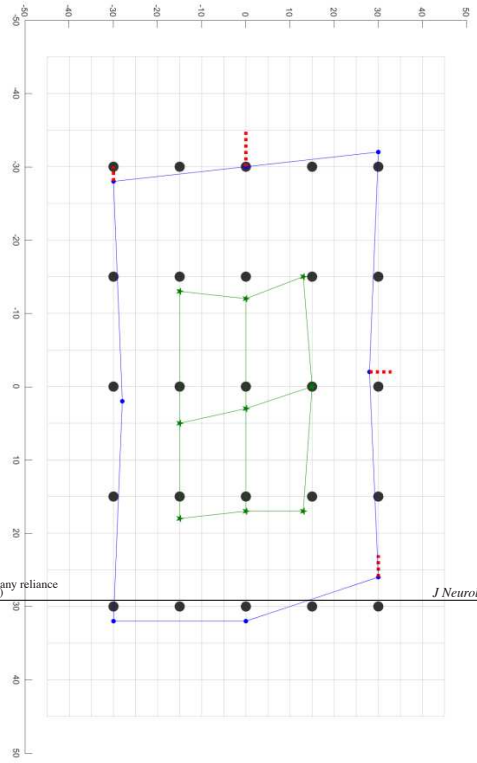
Patient number 51

### Muscles left



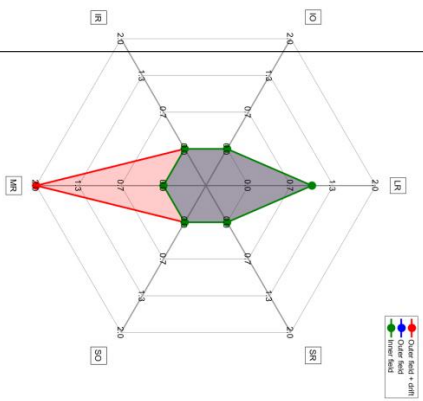
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### Hess chart left

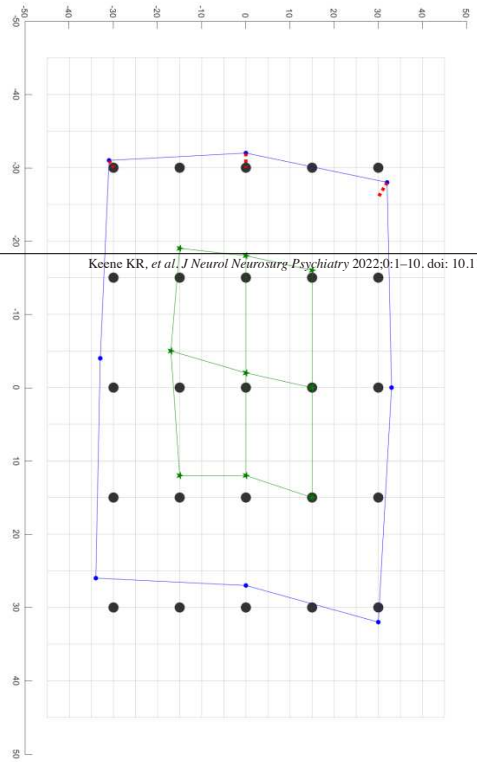


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### Muscles right



### Hess chart right

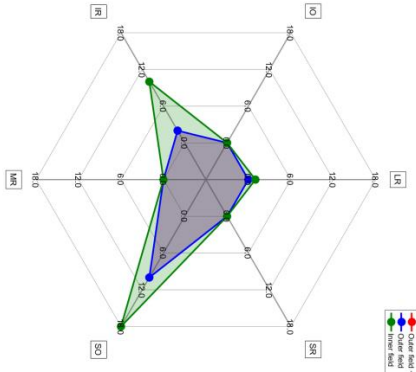


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

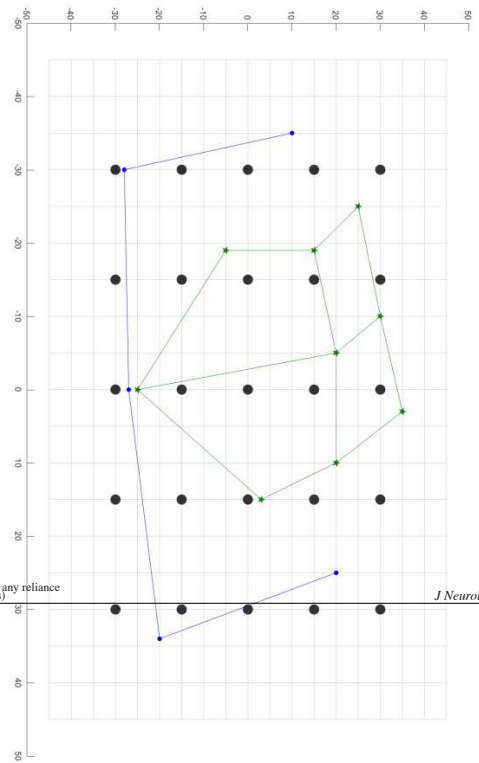
Supplemental material

Patient number 52

### Muscles left



### Hess chart left

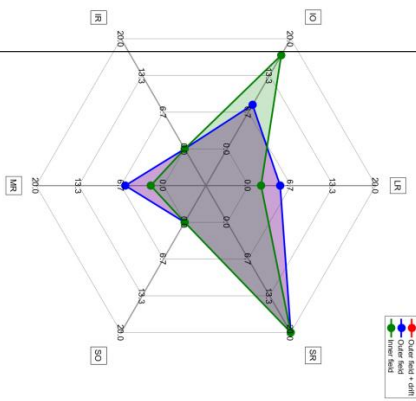


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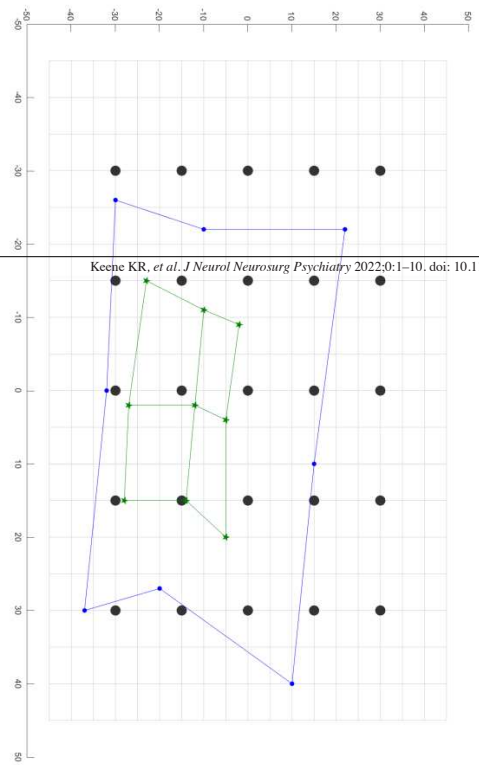
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### Muscles right



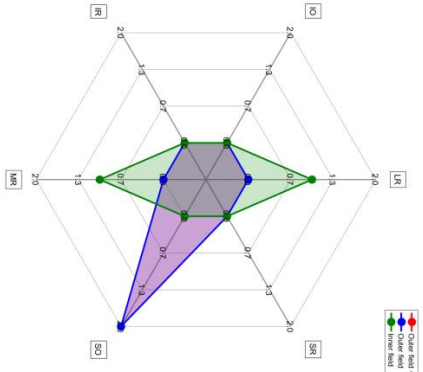
### Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

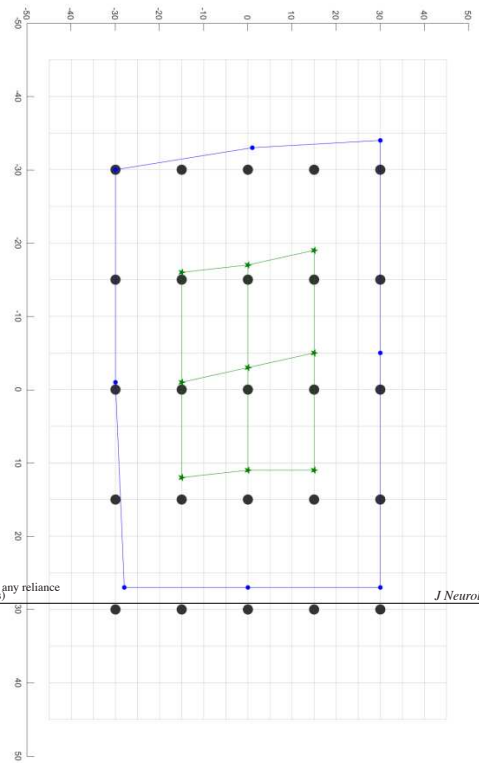
Patient number 53

### Muscles left



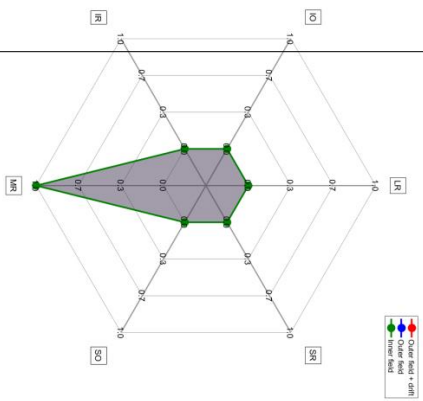
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### Hess chart left

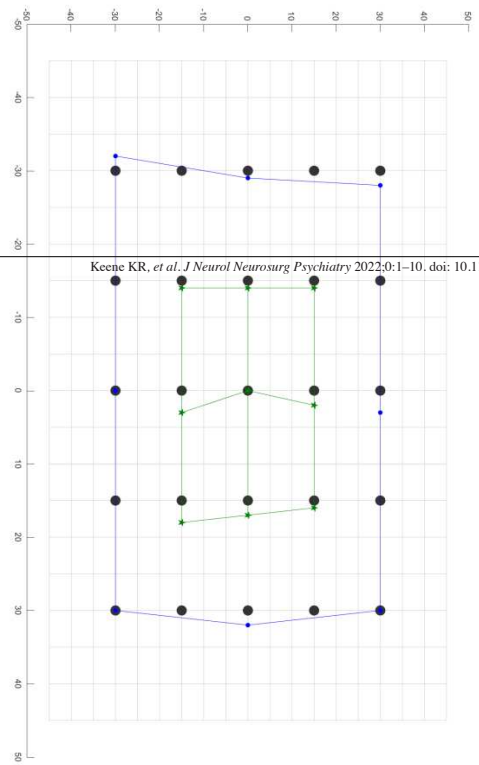


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### Muscles right



### Hess chart right



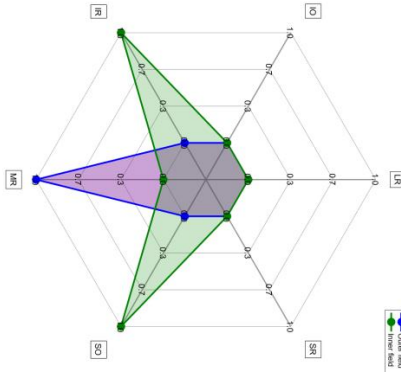
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

Patient number 54

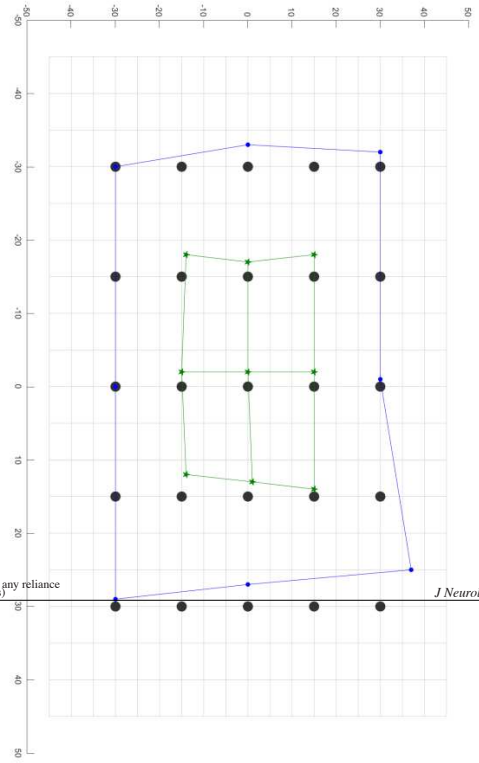


### Muscles left



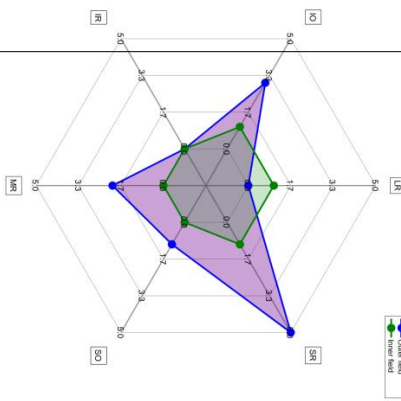
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### Hess chart left

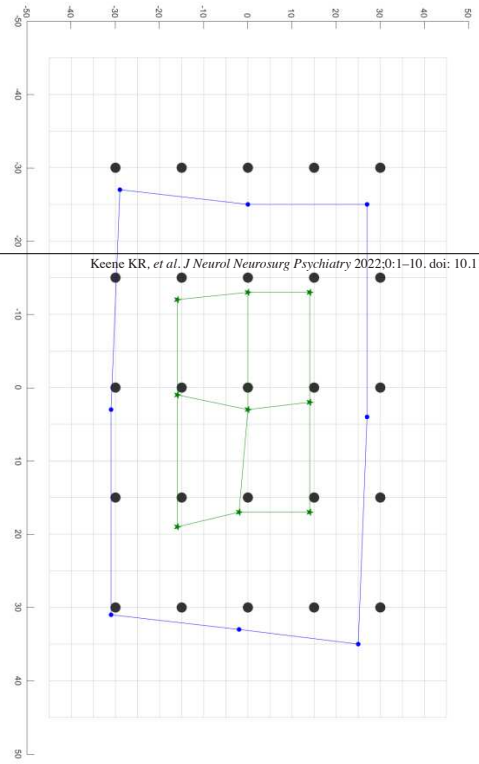


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### Muscles right



### Hess chart right

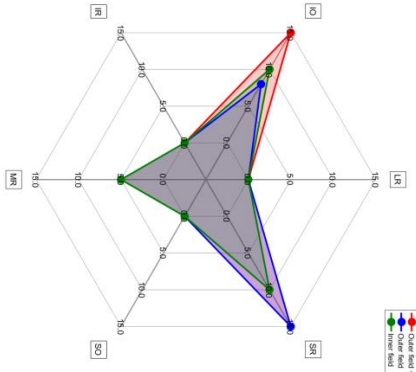


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

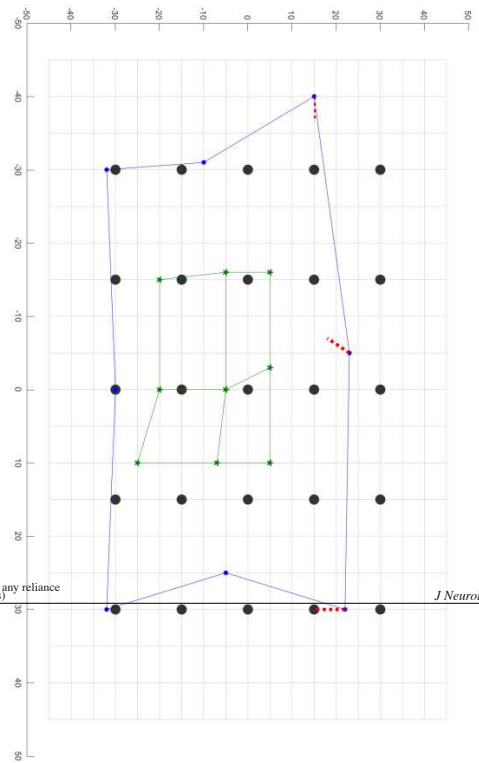
Supplemental material

Patient number 55

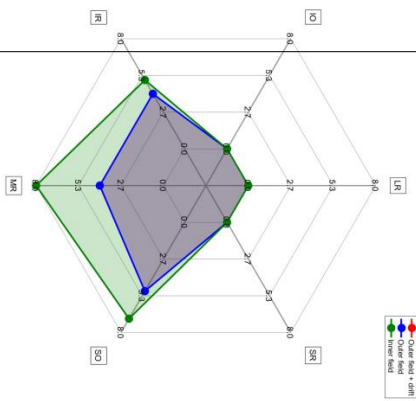
### Muscles left



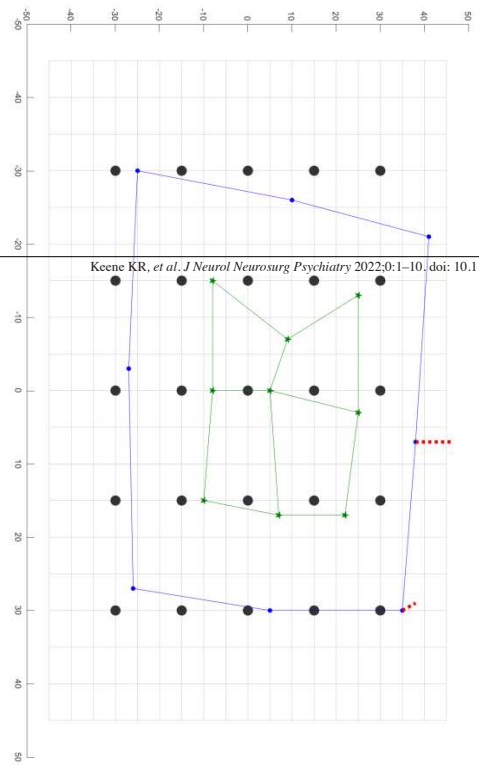
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

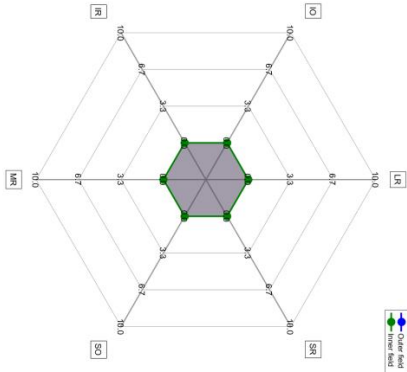
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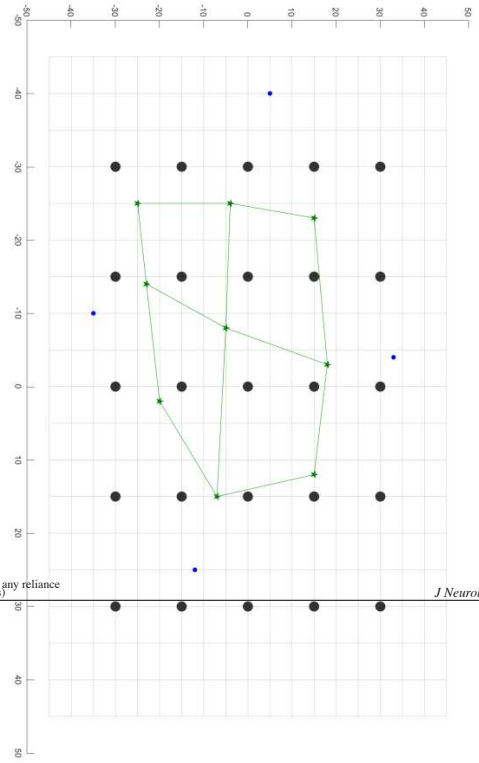
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 56

## Muscles left



## Hess chart left

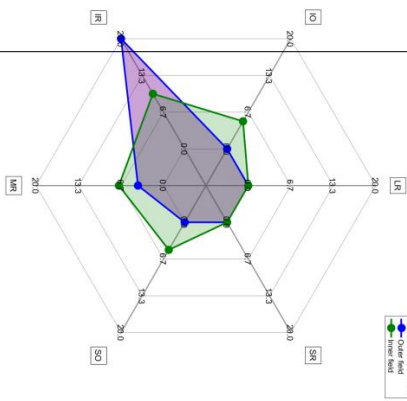


Supplemental material

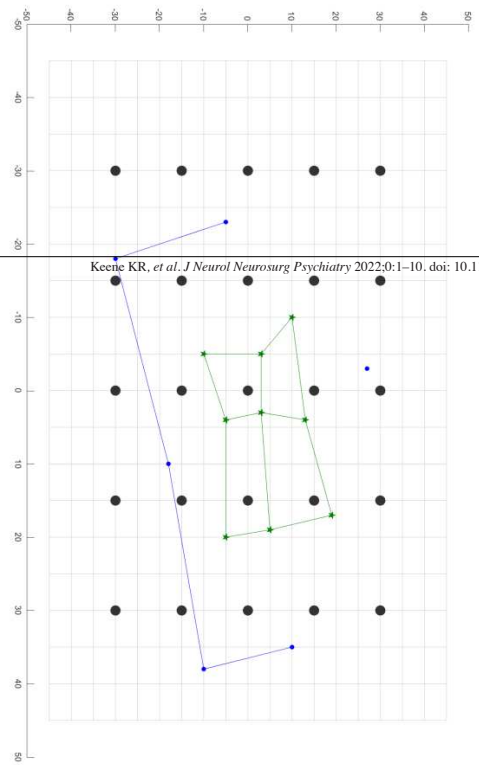
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## Muscles right



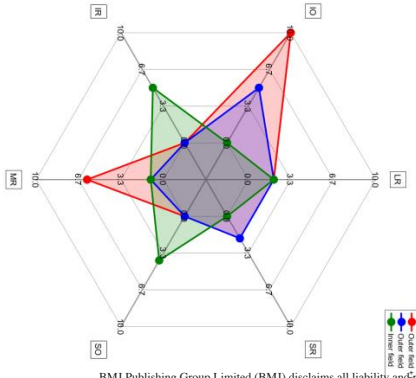
## Hess chart right



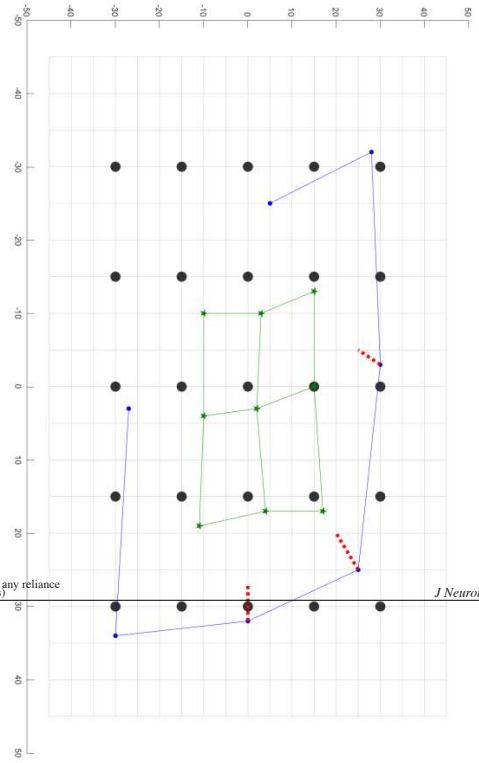
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 57

### Muscles left



### Hess chart left

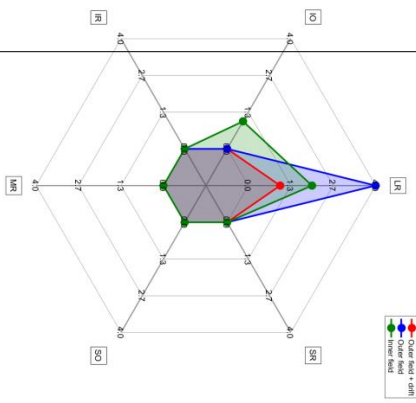


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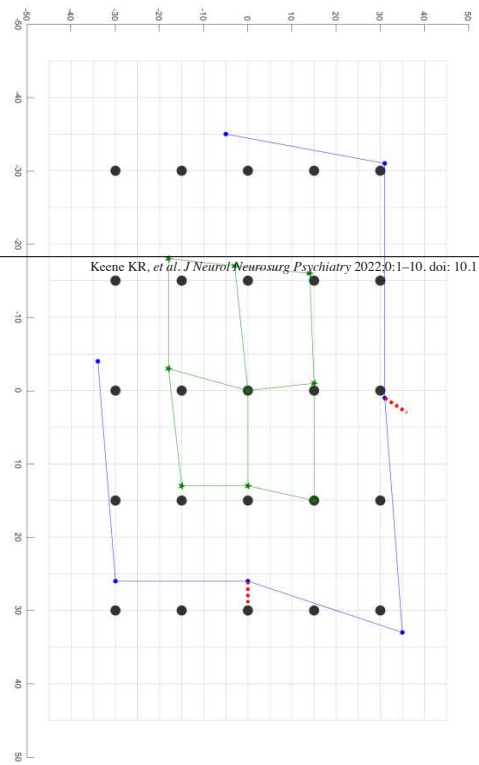
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### Muscles right



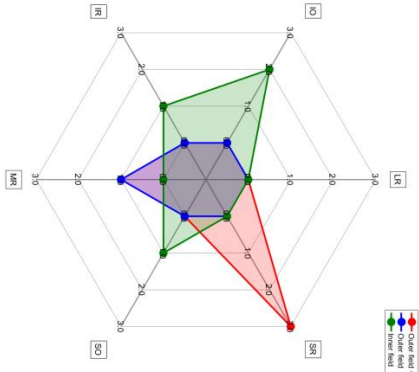
### Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

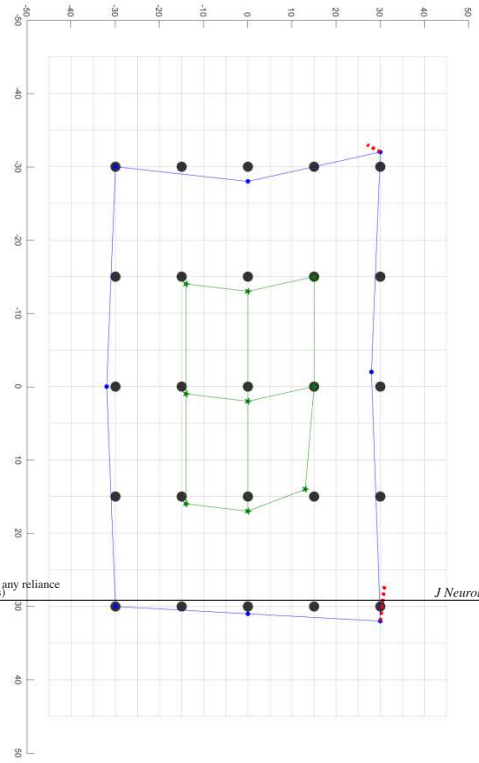
Patient number 58

## Muscles left



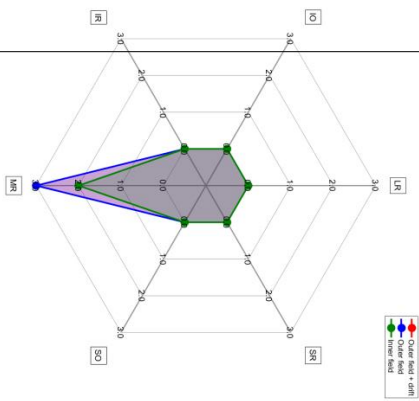
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## Hess chart left

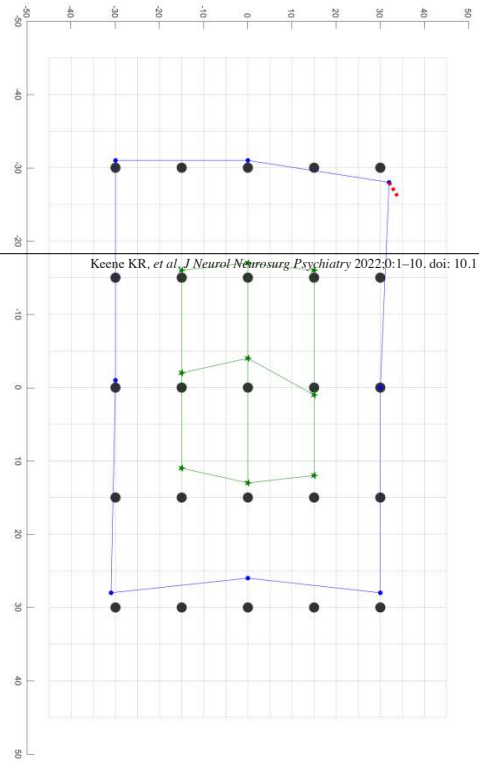


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## Muscles right



## Hess chart right

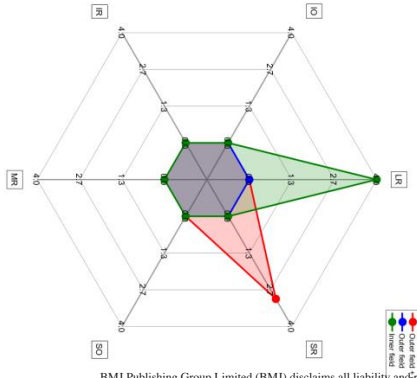


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

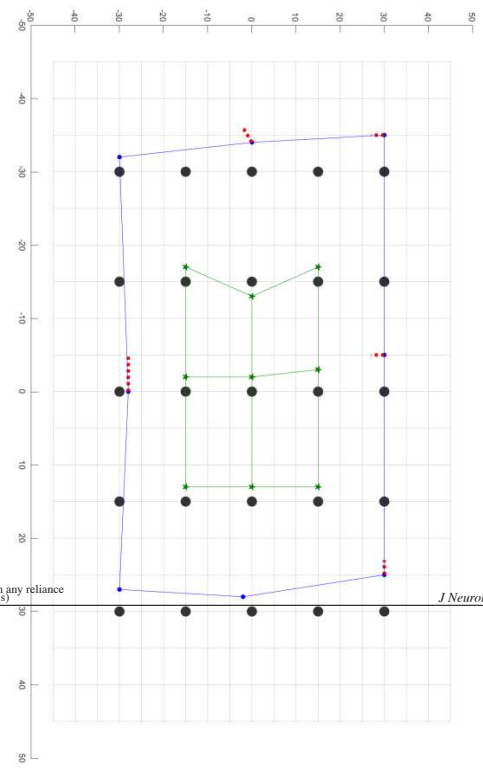
Patient number 59

### Muscles left



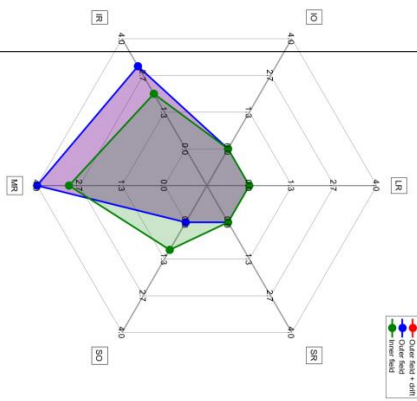
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### Hess chart left

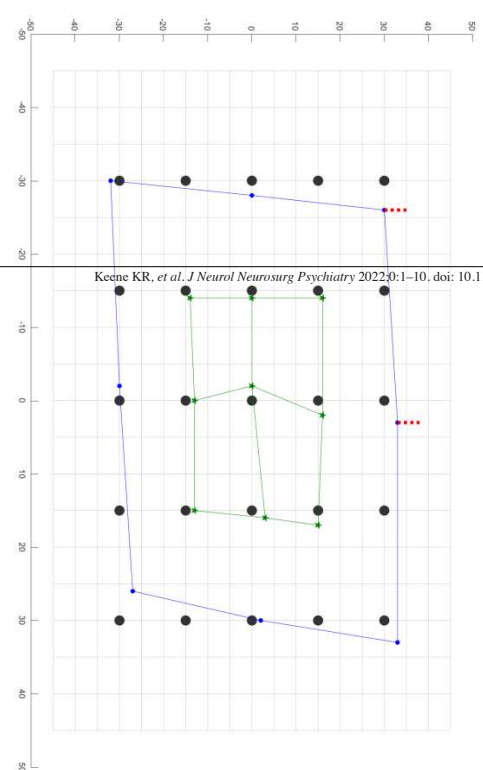


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### Muscles right



### Hess chart right

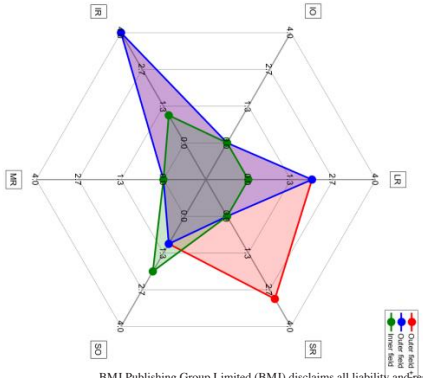


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

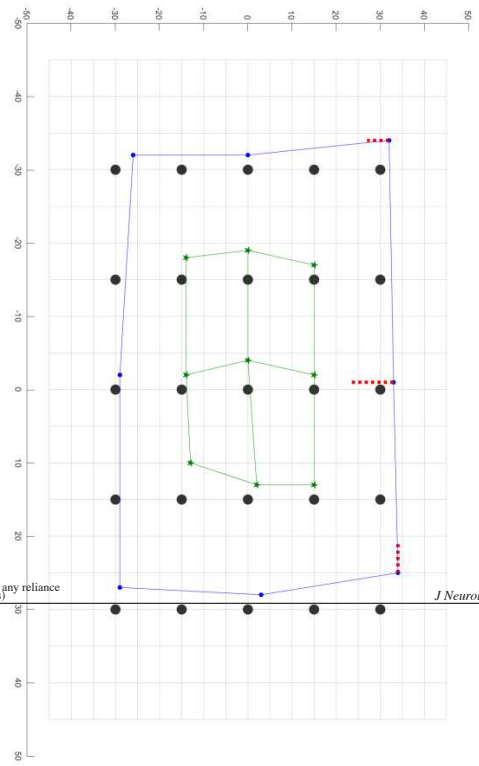
Supplemental material

Patient number 60

### Muscles left



### Hess chart left

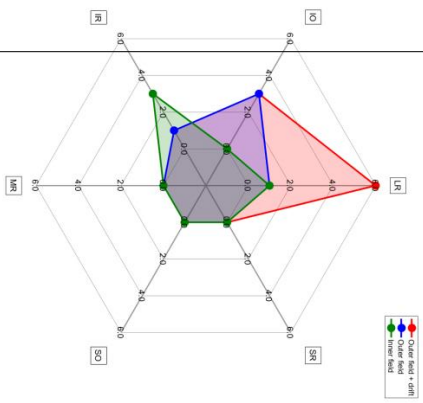


Supplemental material

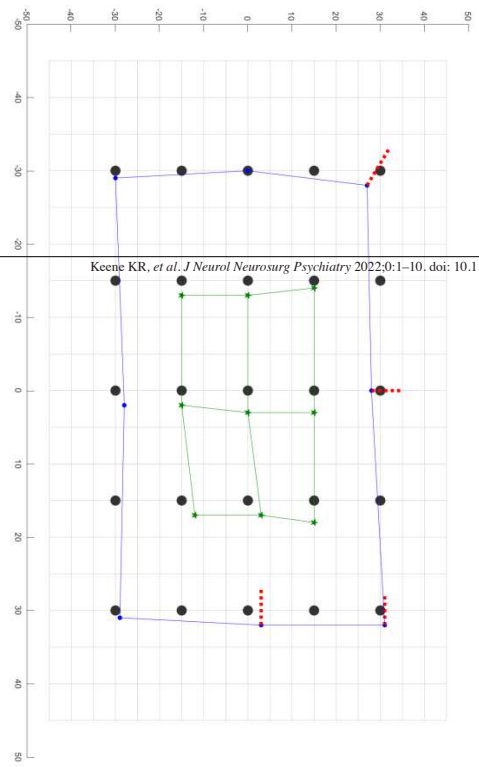
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### Muscles right



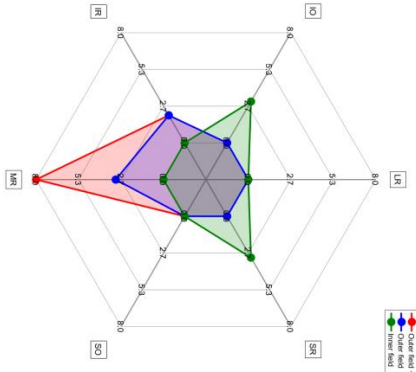
### Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

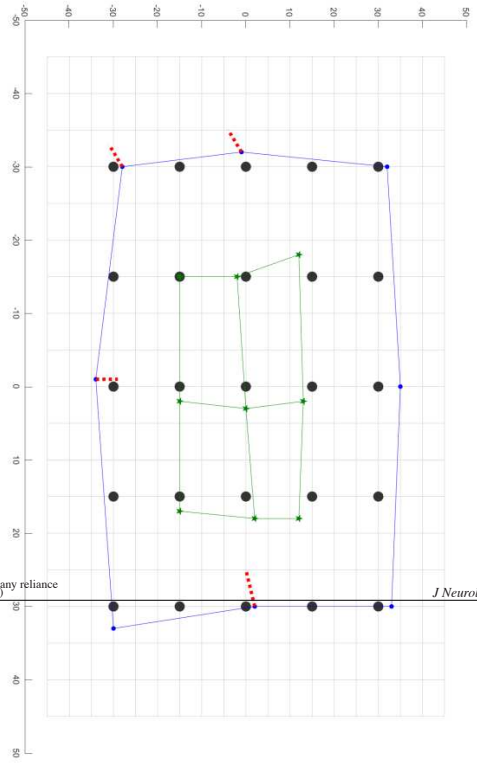
Patient number 61

## Muscles left



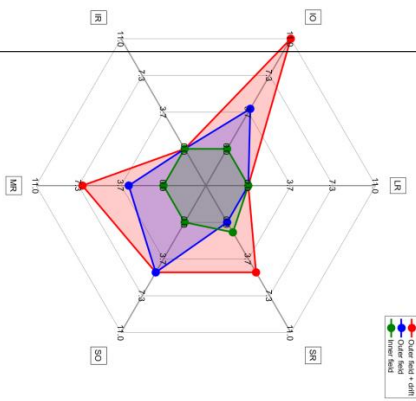
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## Hess chart left

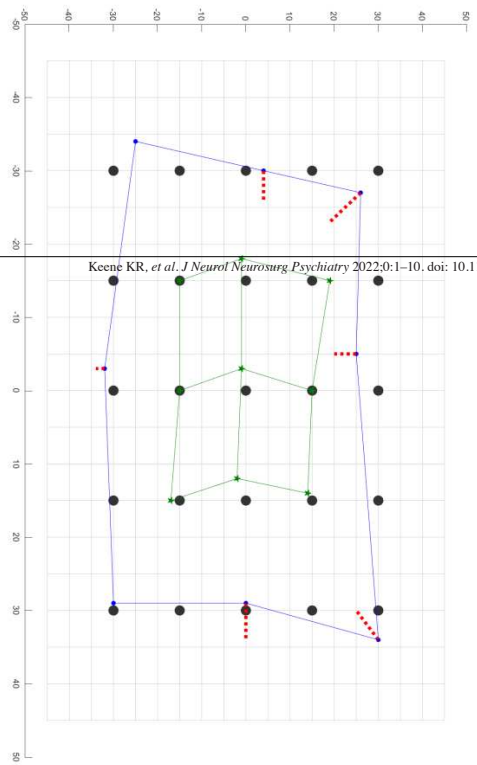


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## Muscles right



## Hess chart right



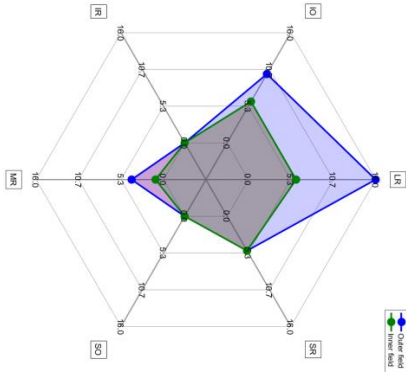
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Supplemental material

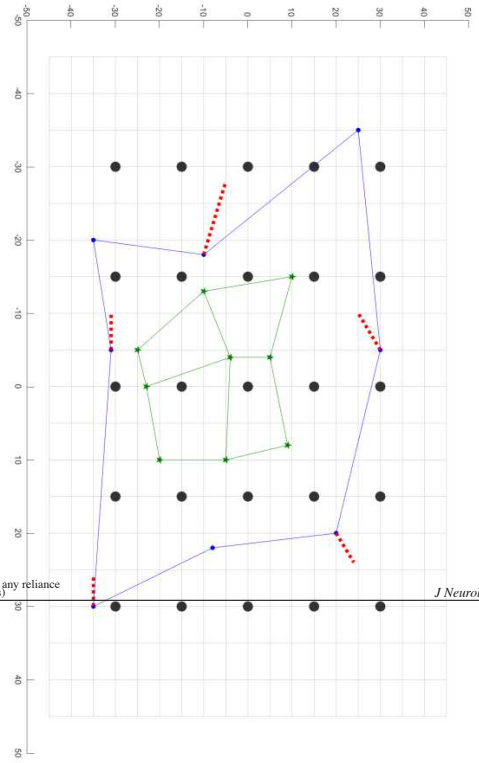
Patient number 62



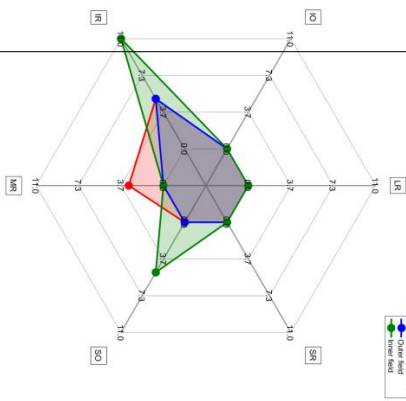
### Muscles left



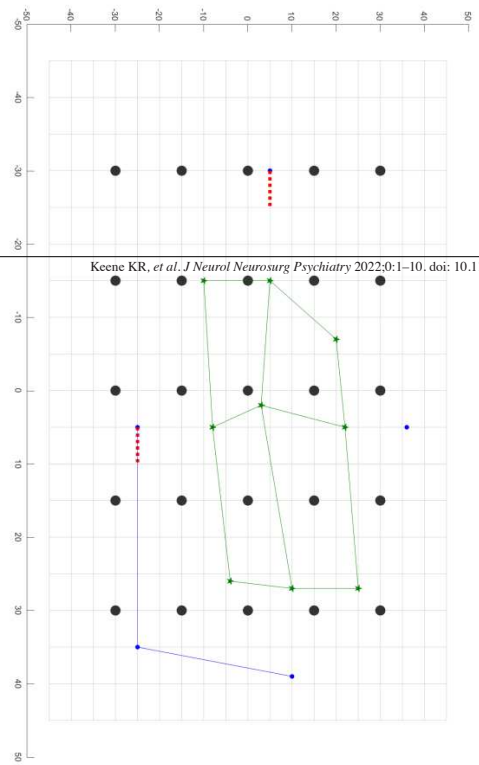
### Hess chart left



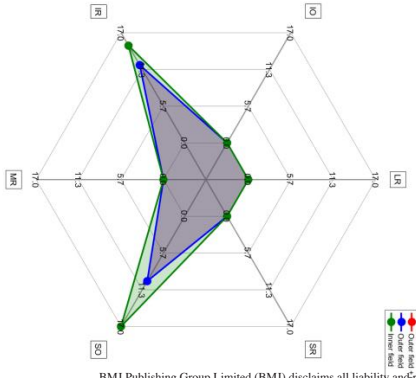
### Muscles right



### Hess chart right

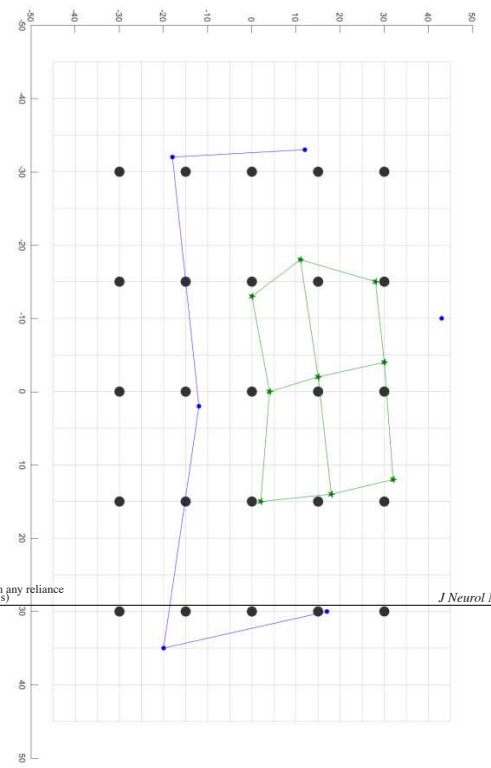


### Muscles left



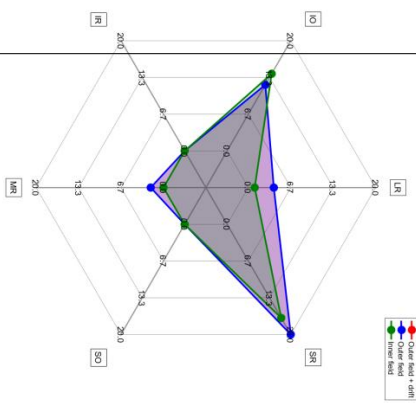
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### Hess chart left

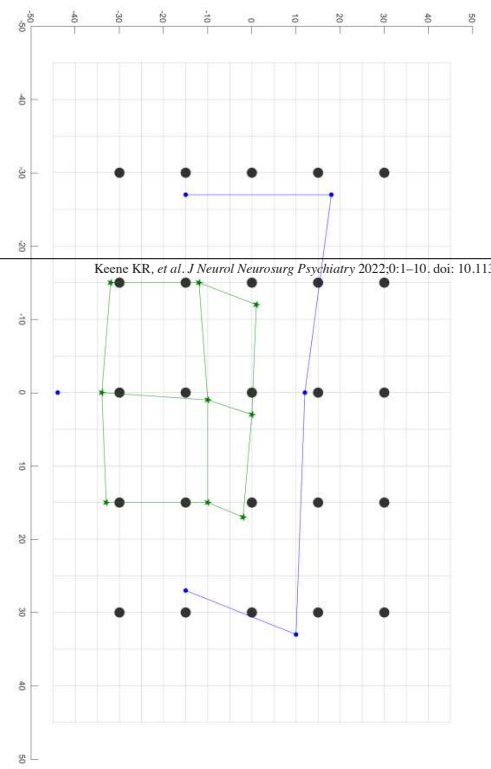


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### Muscles right



### Hess chart right

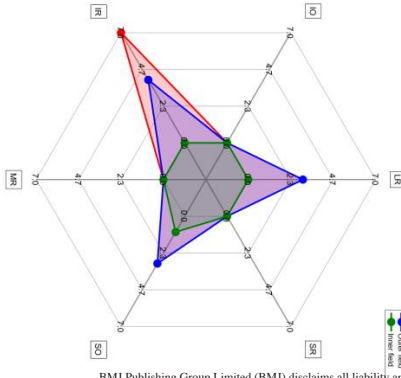


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

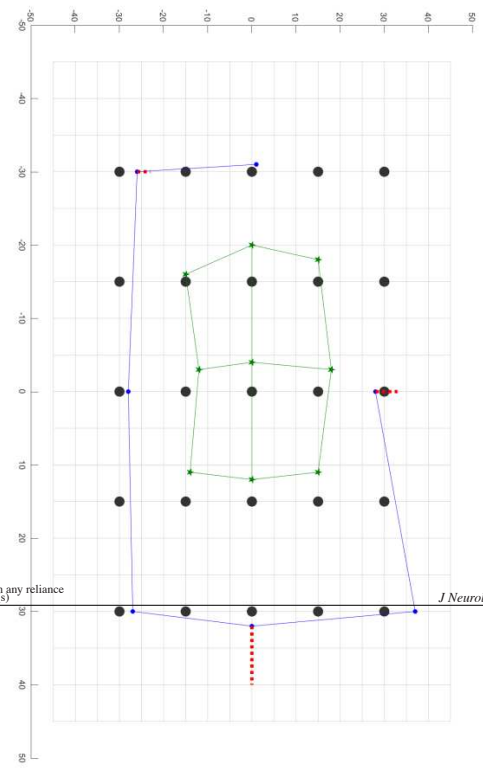
Patient number 64

### Muscles left



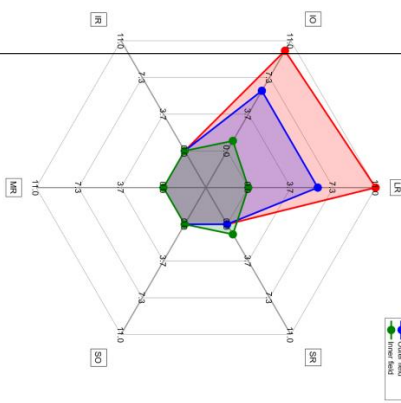
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### Hess chart left

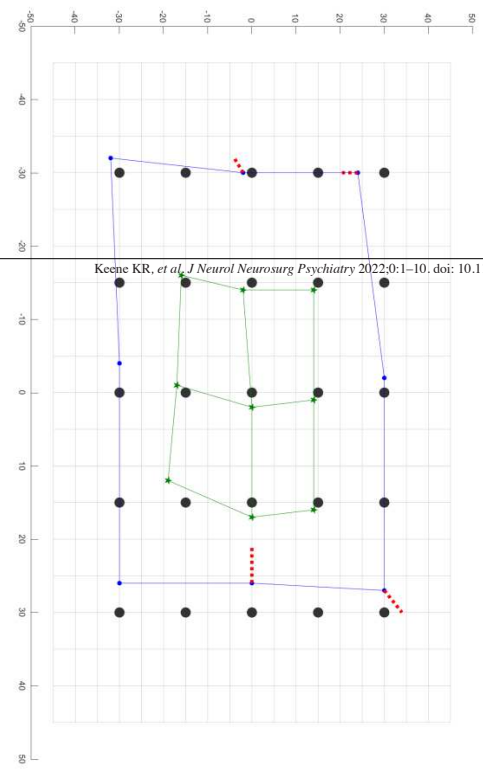


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### Muscles right



### Hess chart right

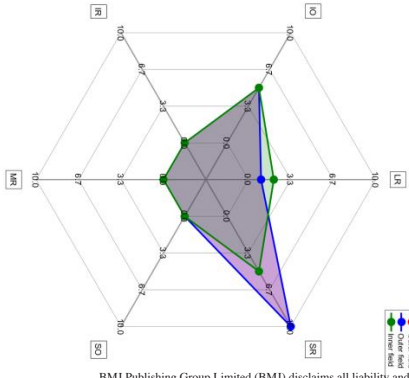


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

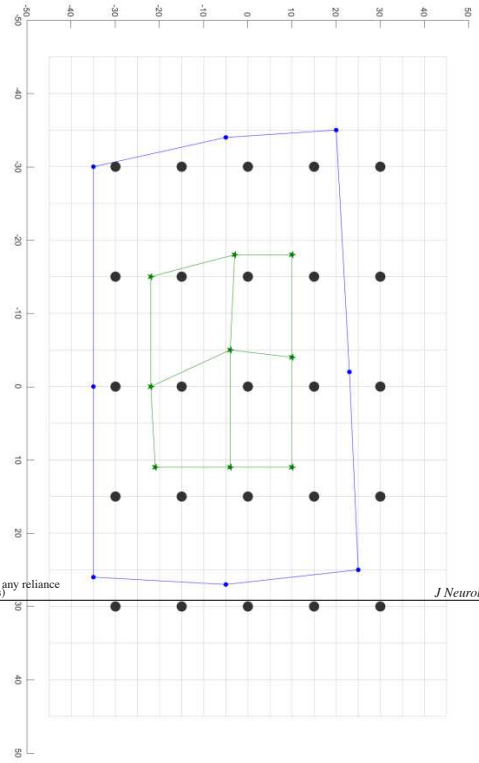
Supplemental material

Patient number 65

### Muscles left



### Hess chart left

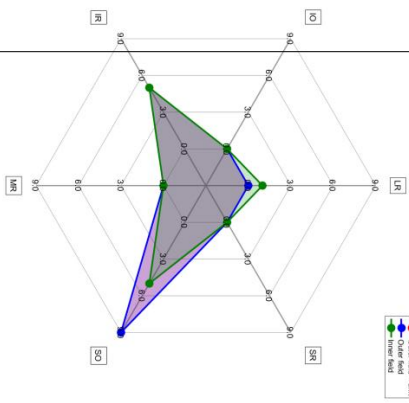


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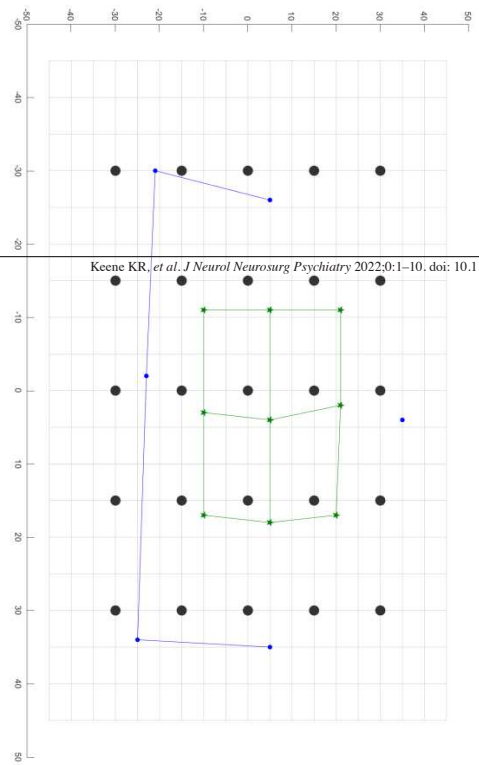
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### Muscles right



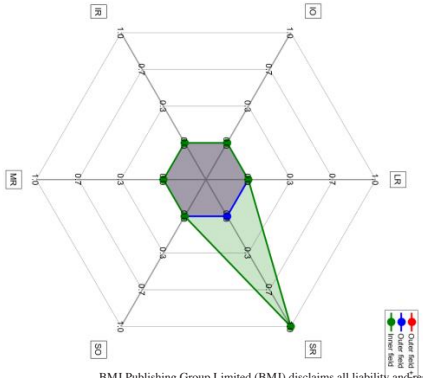
### Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

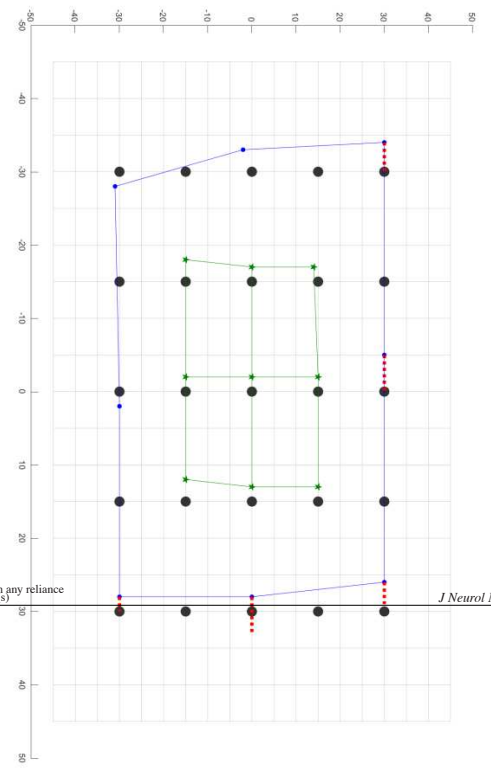
Patient number 66

## Muscles left



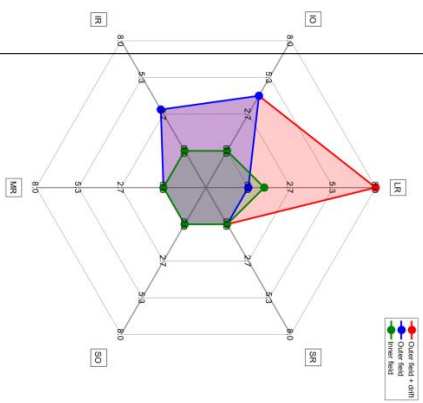
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## Hess chart left

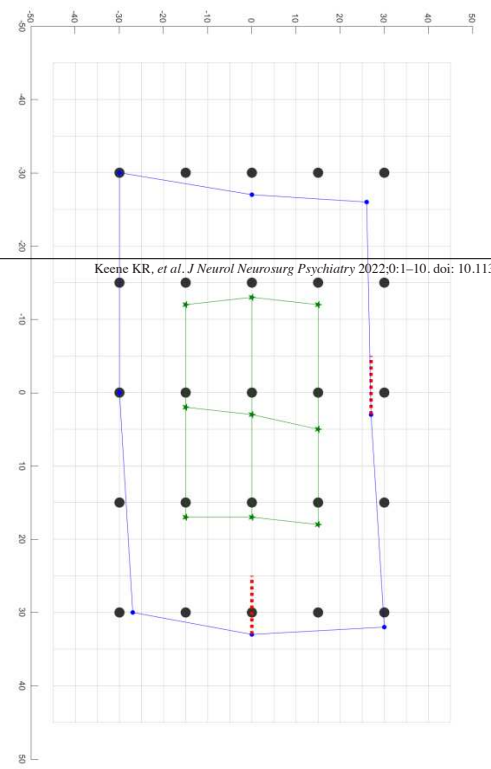


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## Muscles right



## Hess chart right

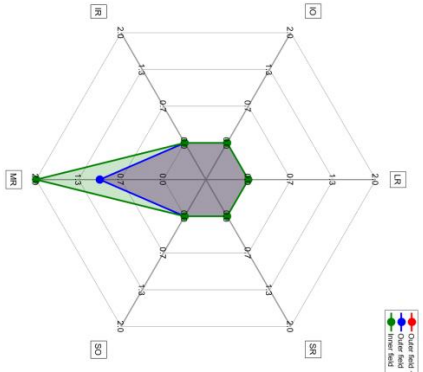


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

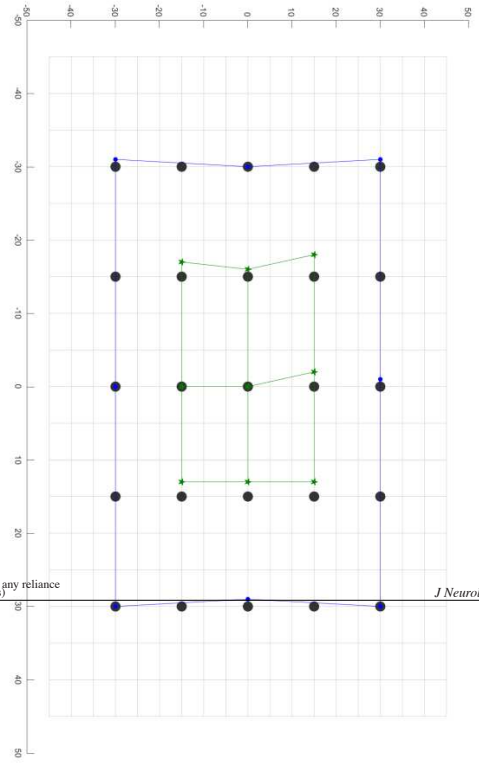
Supplemental material

Patient number 67

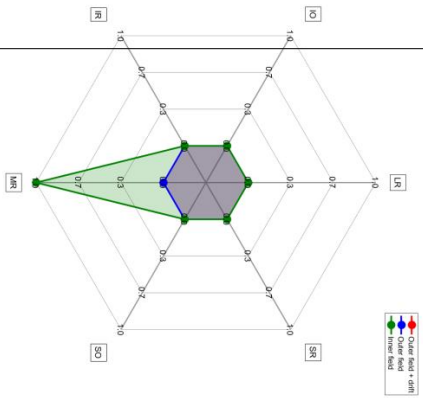
### Muscles left



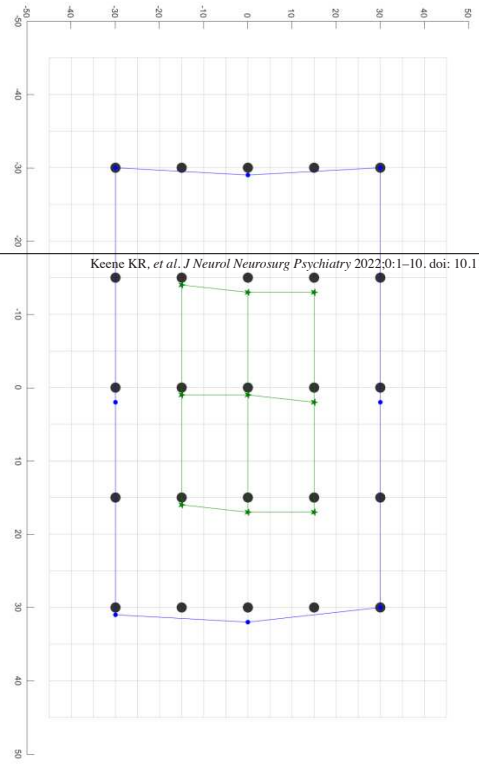
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

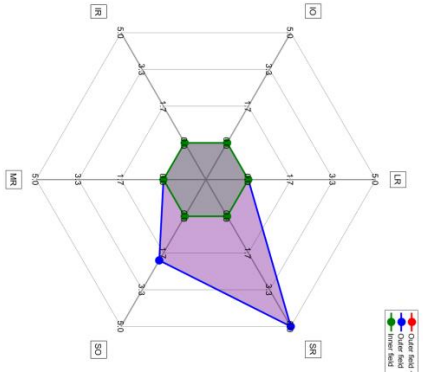
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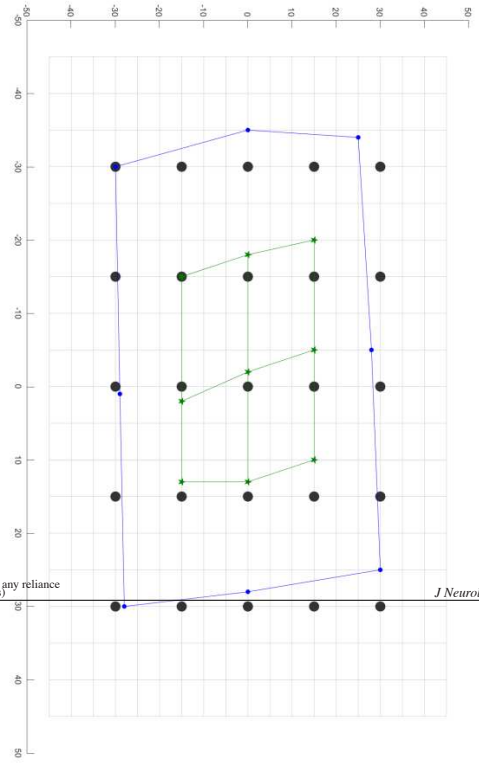
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 68

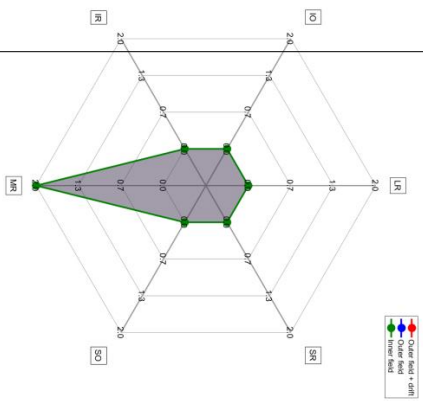
## Muscles left



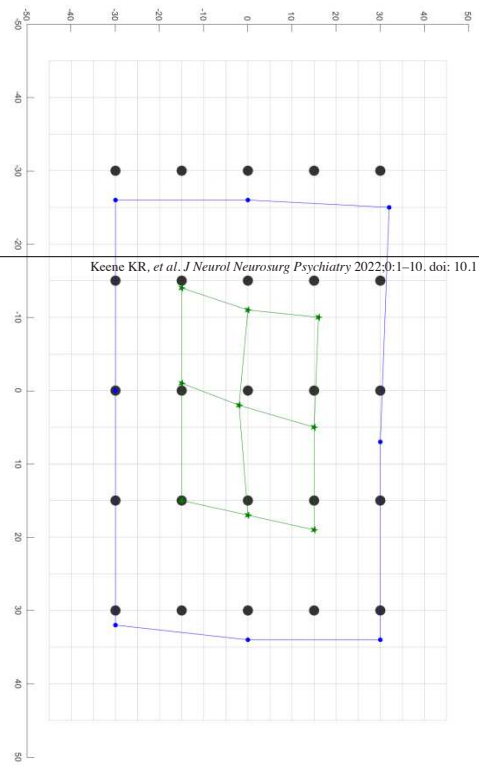
## Hess chart left



## Muscles right



## Hess chart right



Supplemental material

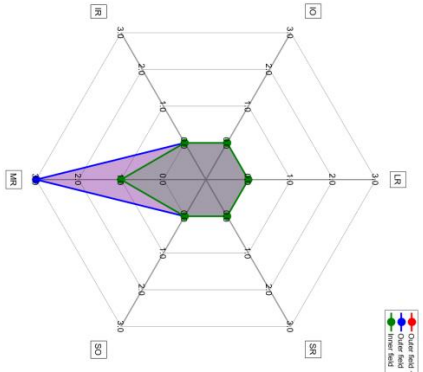
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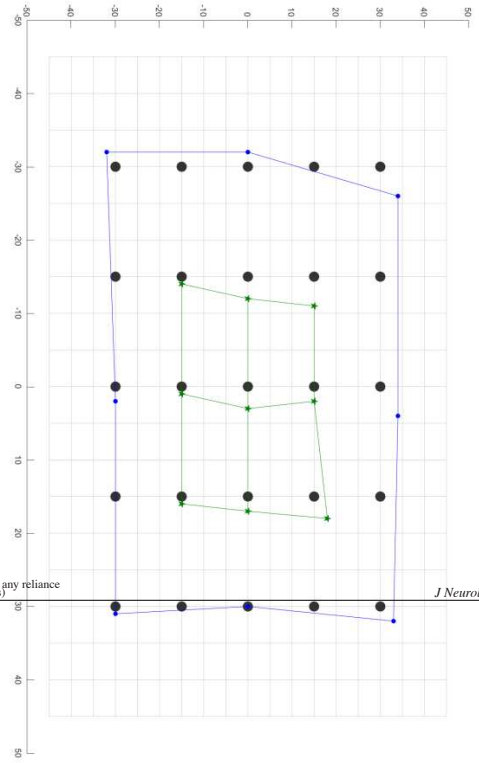
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 69

### Muscles left



### Hess chart left

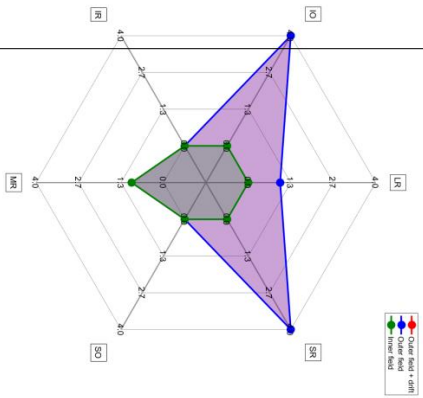


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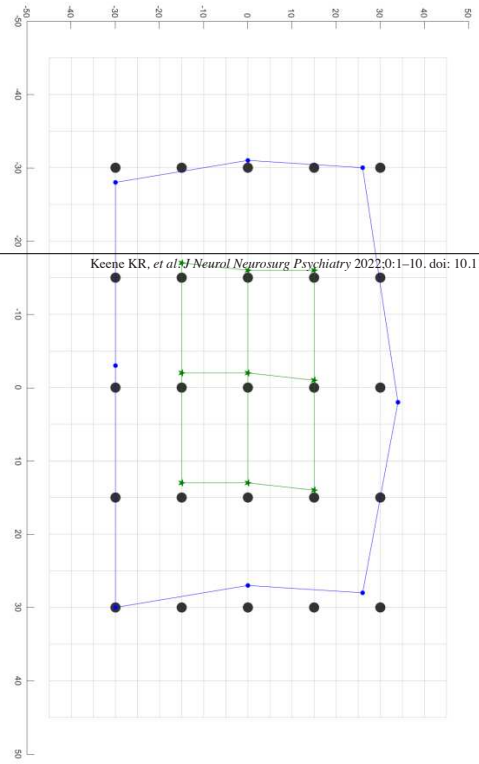
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### Muscles right



### Hess chart right

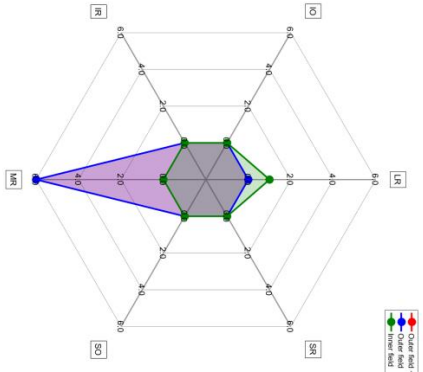


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

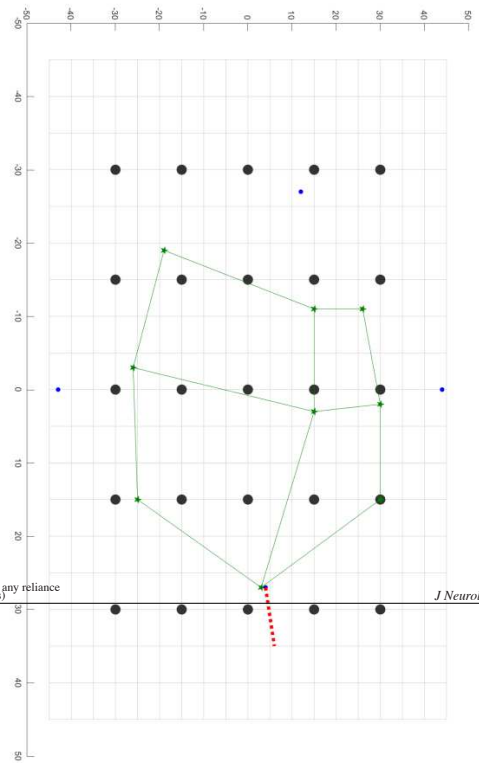
Patient number 70



### Muscles left



### Hess chart left

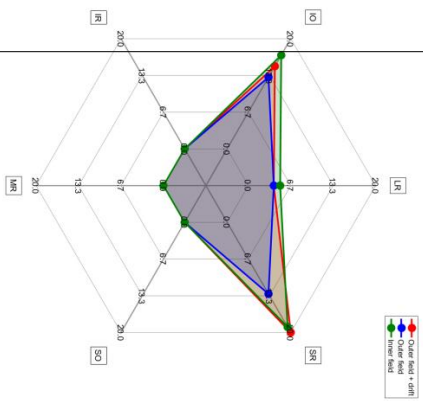


Supplemental material

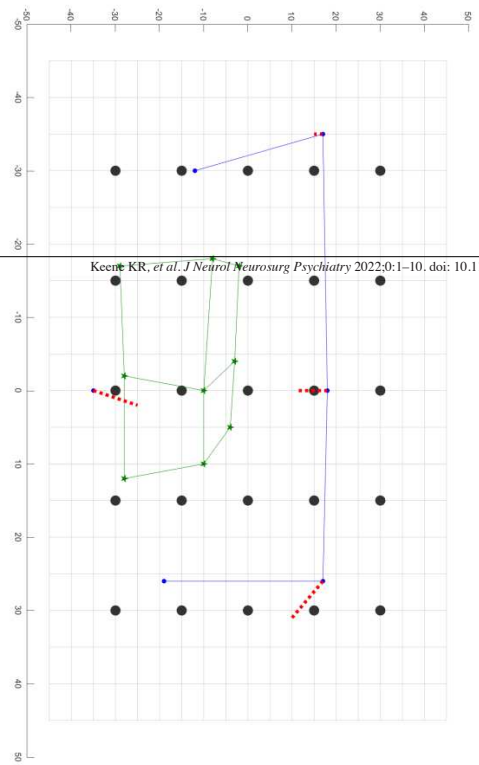
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### Muscles right



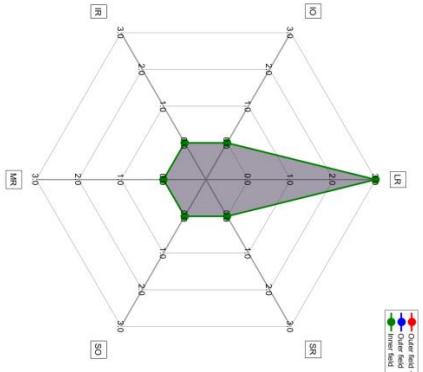
### Hess chart right



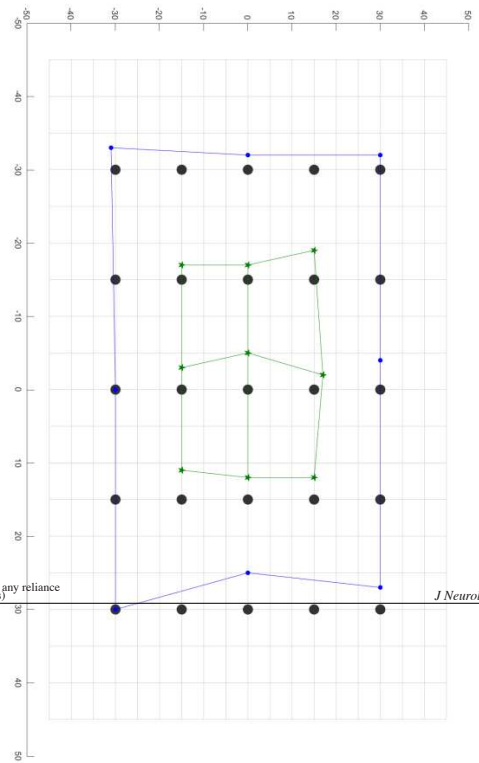
Keent KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 71

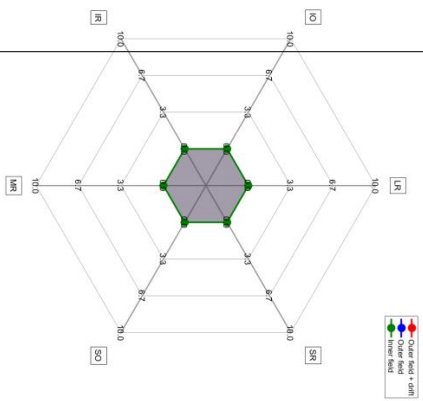
### Muscles left



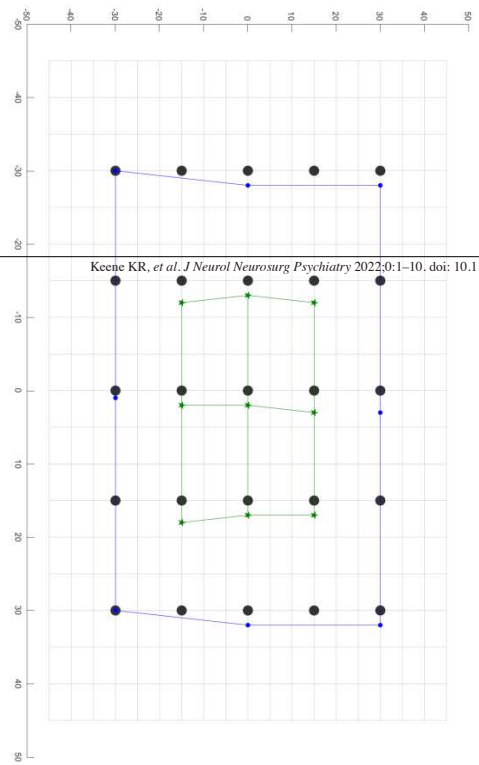
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

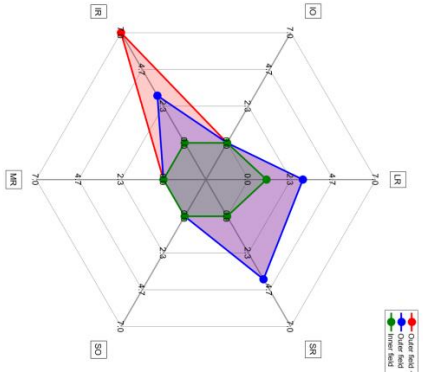
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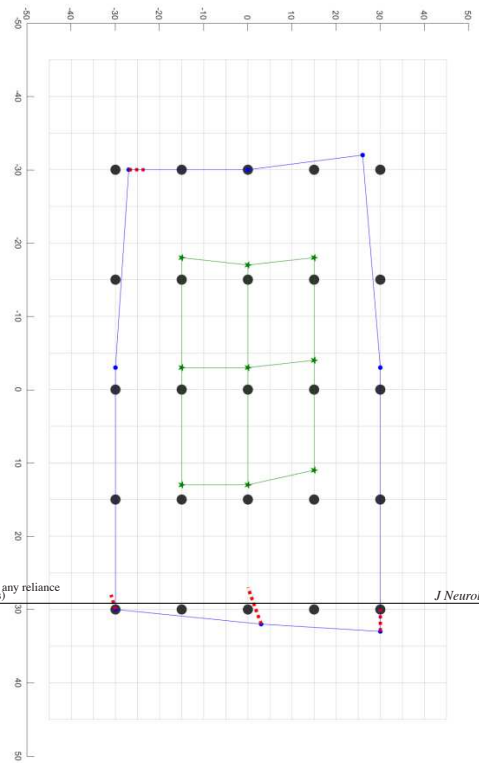
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

**Patient number 72**

### Muscles left



### Hess chart left

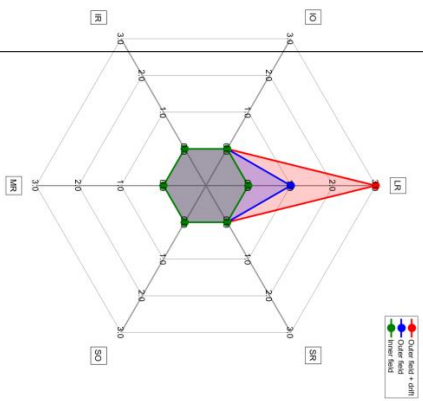


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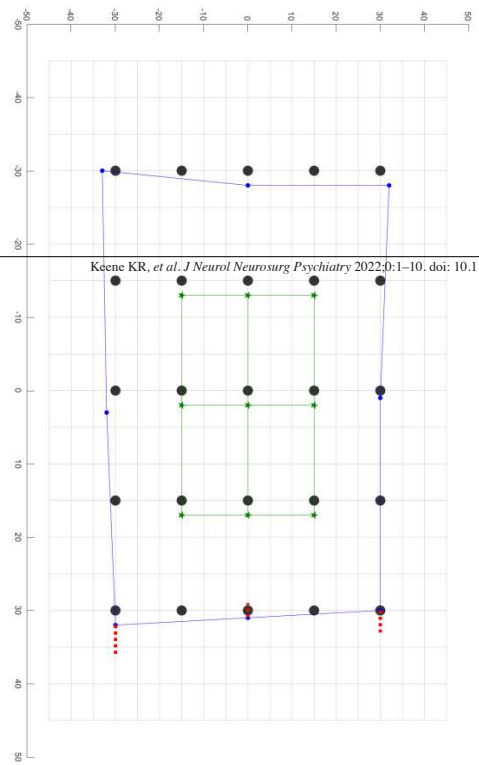
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### Muscles right



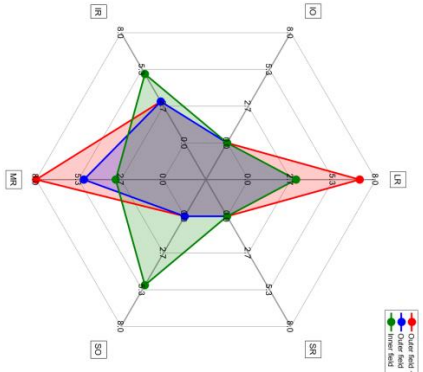
### Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

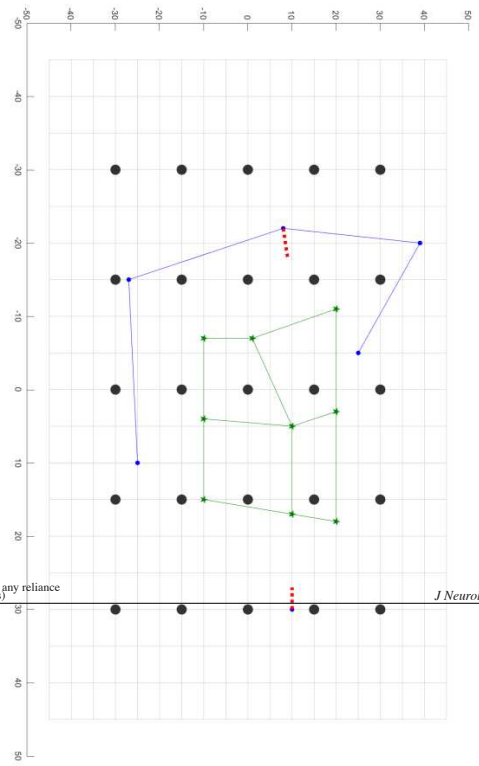
Patient number 73

## Muscles left



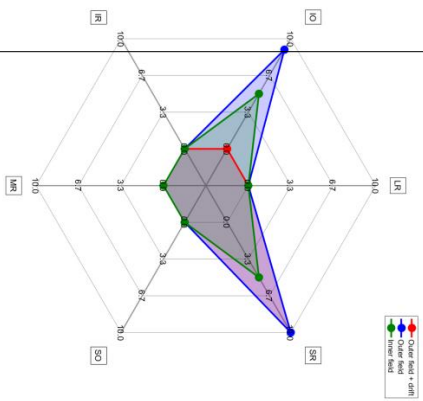
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## Hess chart left

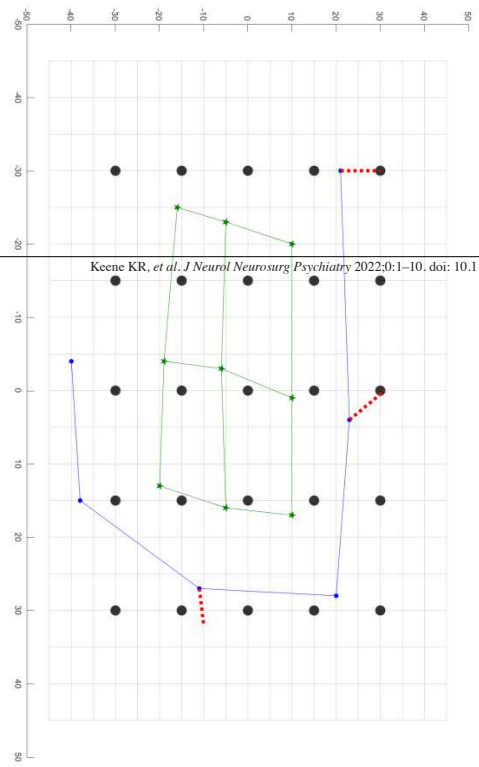


*J Neurol Neurosurg Psychiatry*

## Muscles right



## Hess chart right

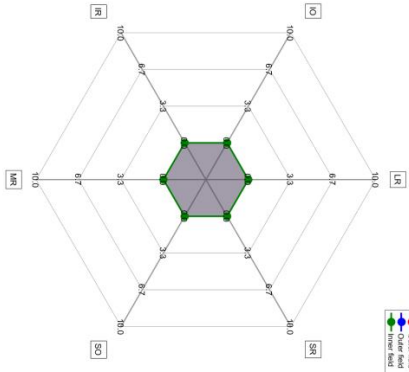


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

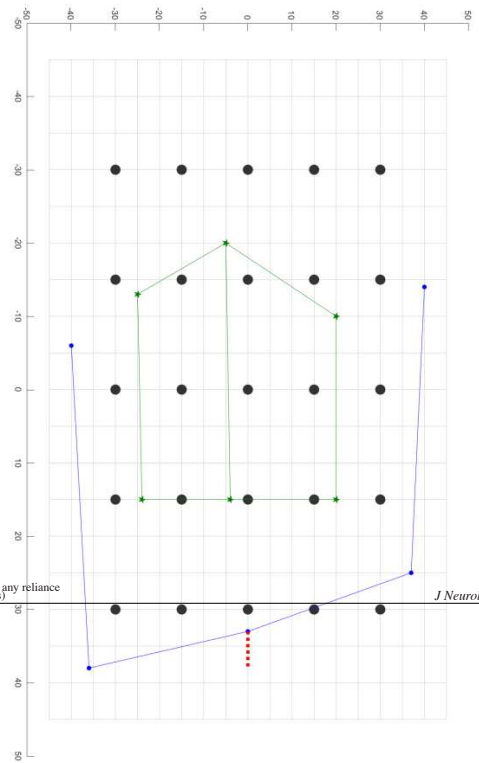
Supplemental material

Patient number 74

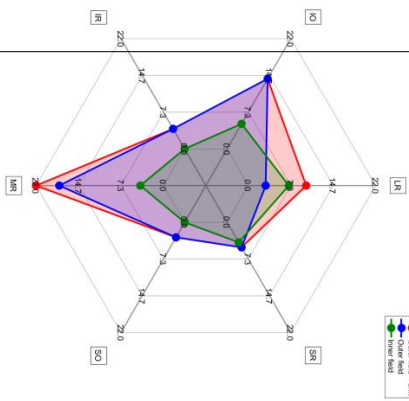
# Muscles left



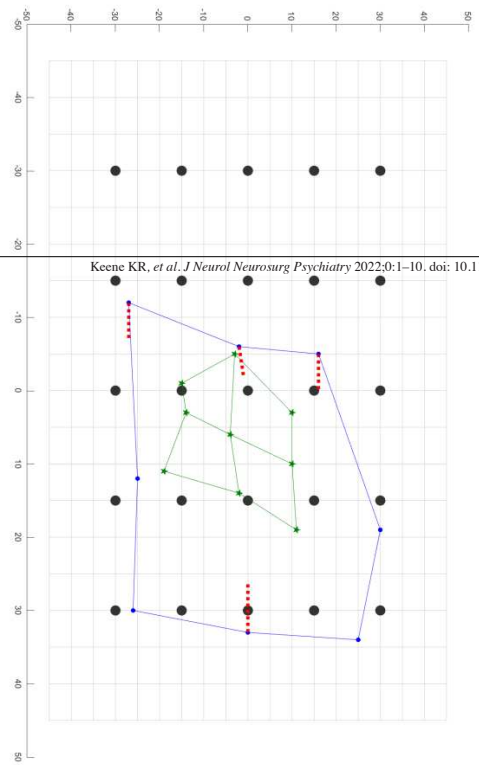
# Hess chart left



# Muscles right



# Hess chart right



Supplemental material

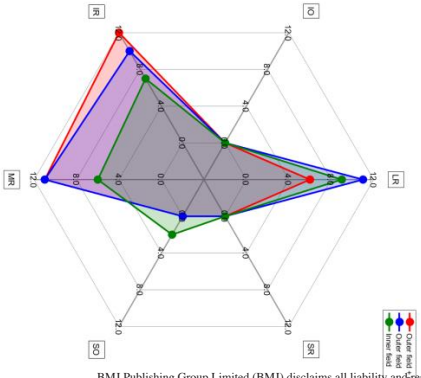
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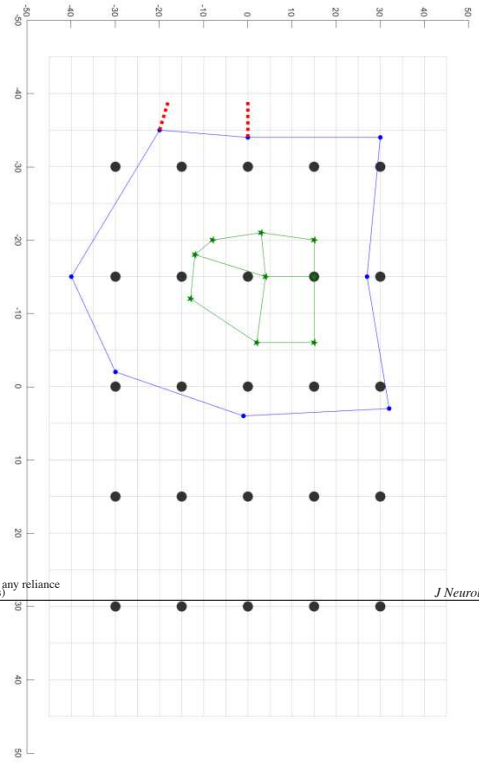
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 75

# Muscles left



# Hess chart left

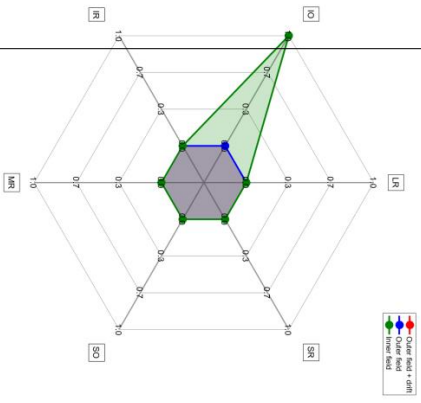


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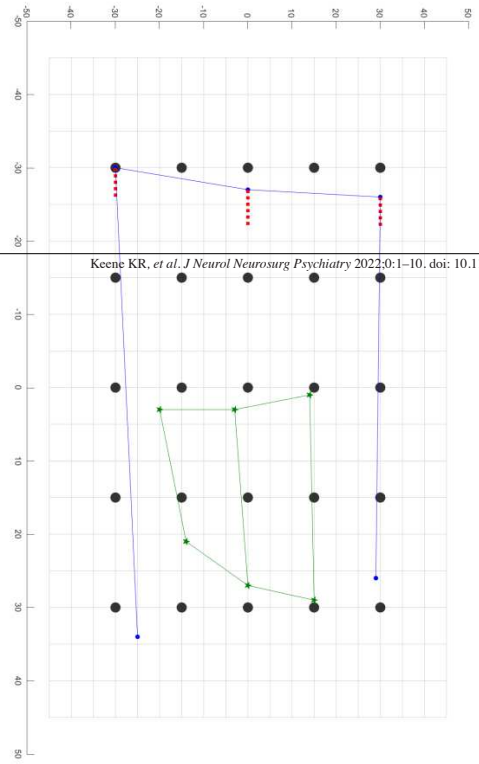
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# Muscles right



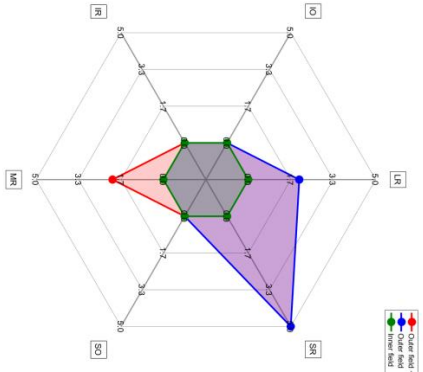
# Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

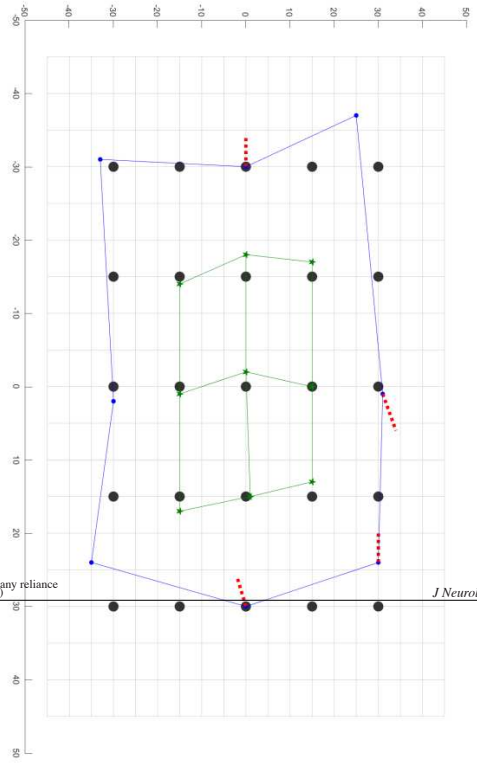
Patient number 76

## Muscles left



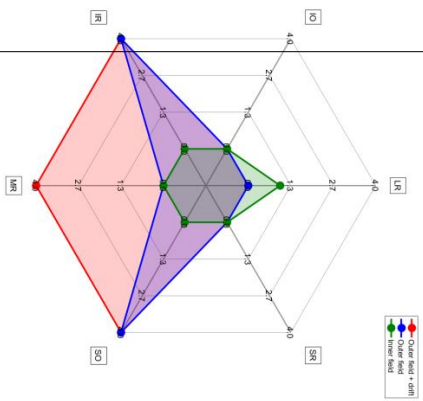
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## Hess chart left

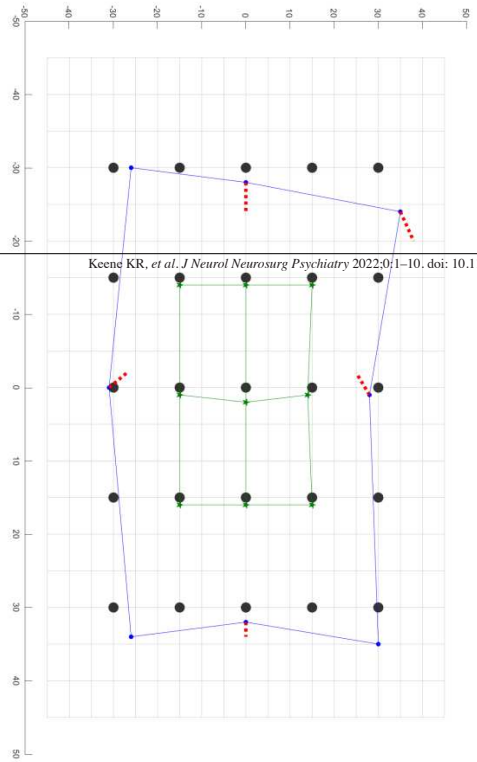


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## Muscles right



## Hess chart right

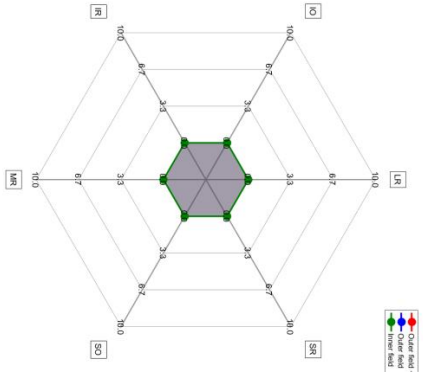


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

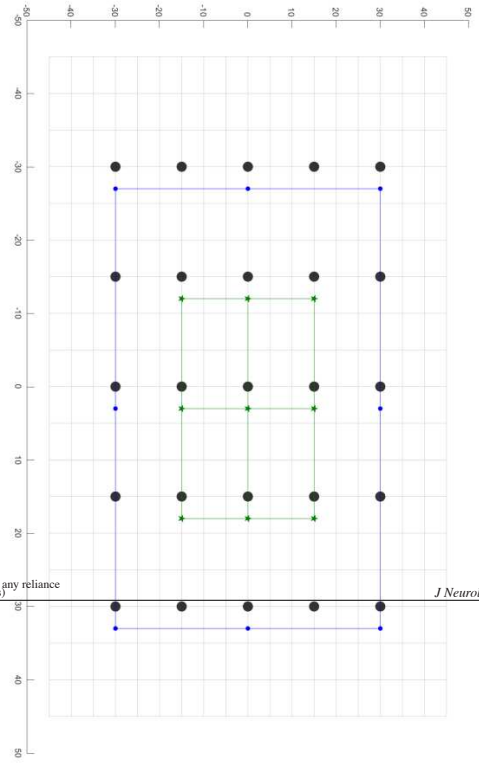
Supplemental material

Patient number 77

# Muscles left



# Hess chart left

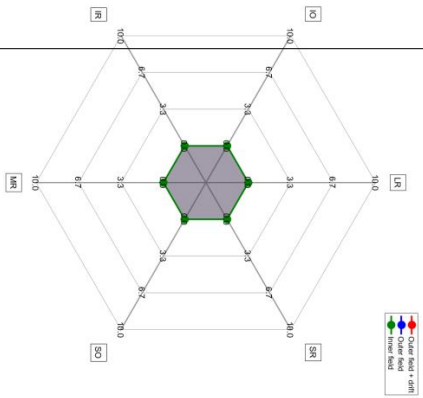


Supplemental material

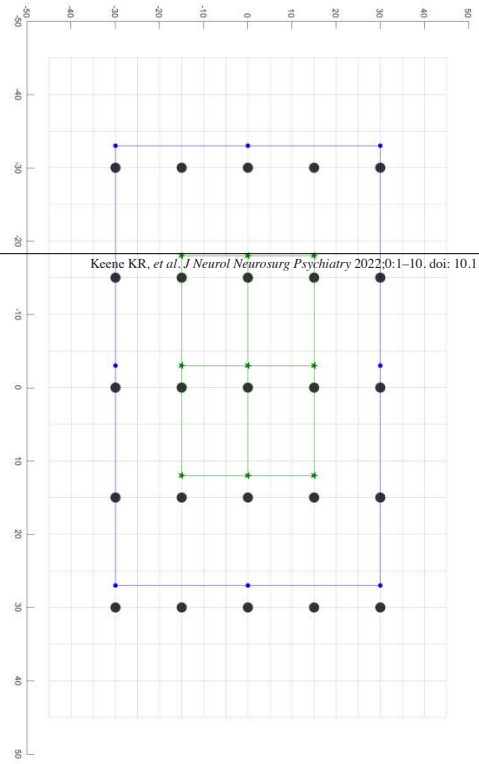
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# Muscles right



# Hess chart right

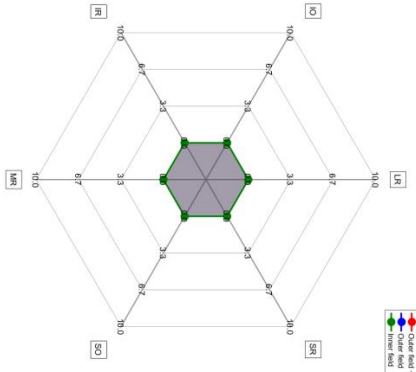


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

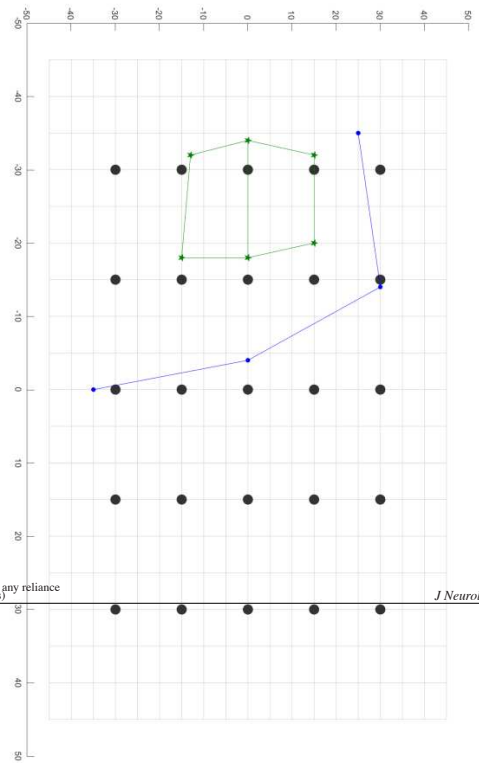
Patient number 78



### Muscles left



### Hess chart left

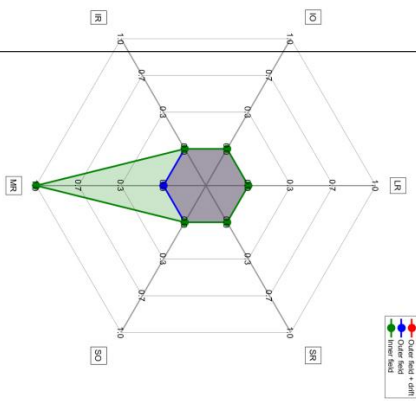


Supplemental material

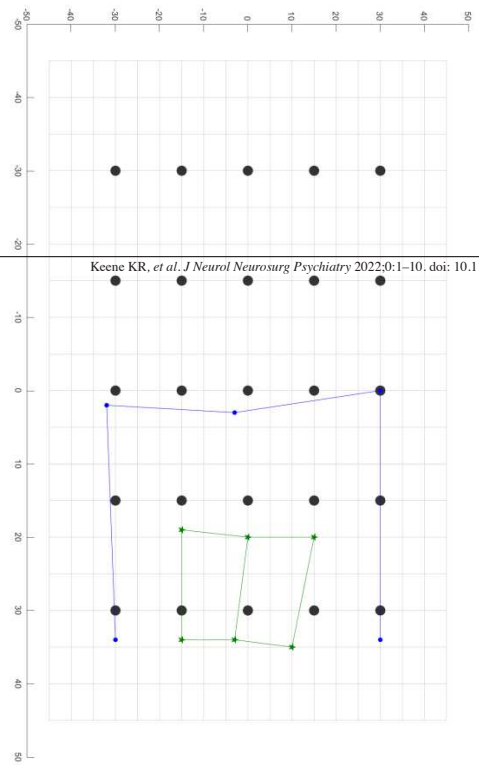
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### Muscles right



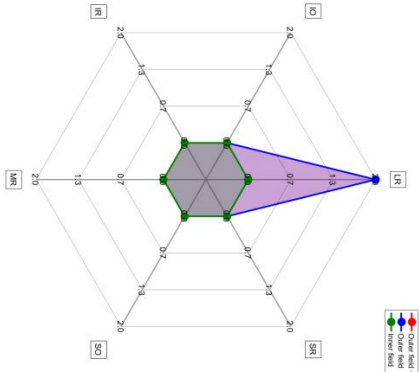
### Hess chart right



Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

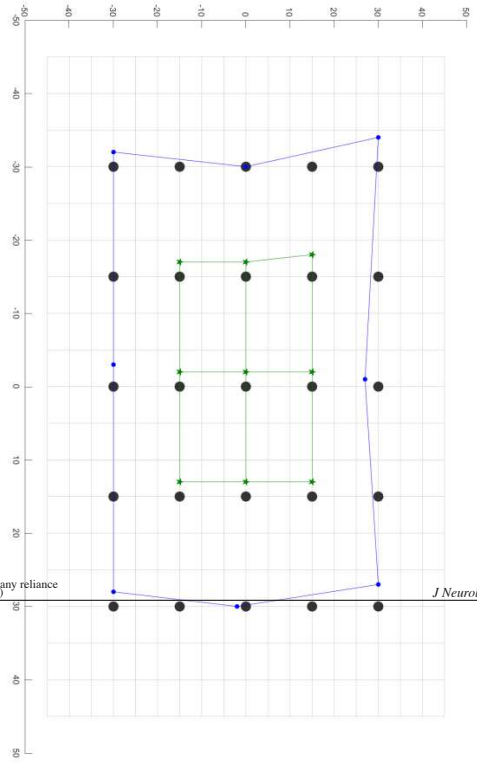
Patient number 79

### Muscles left



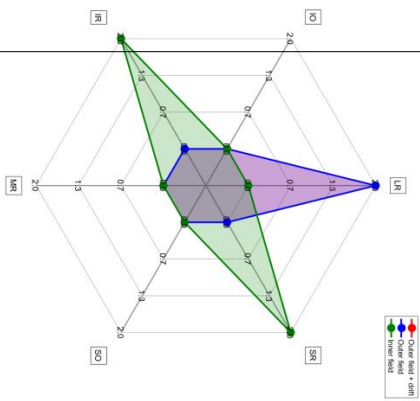
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### Hess chart left

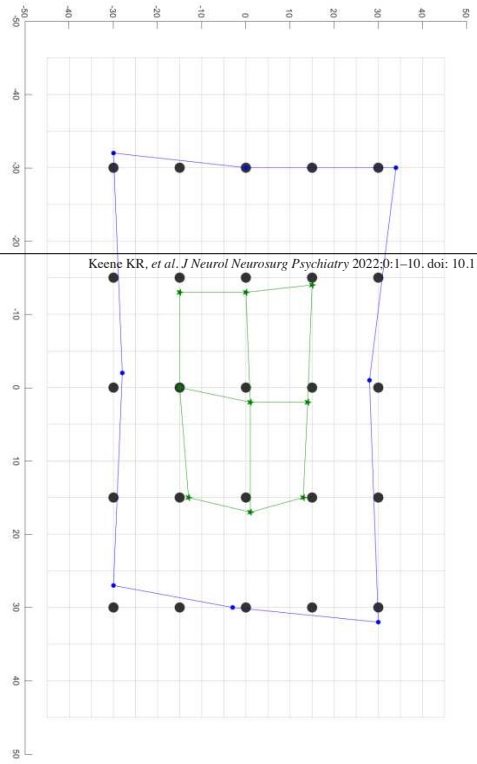


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### Muscles right



### Hess chart right

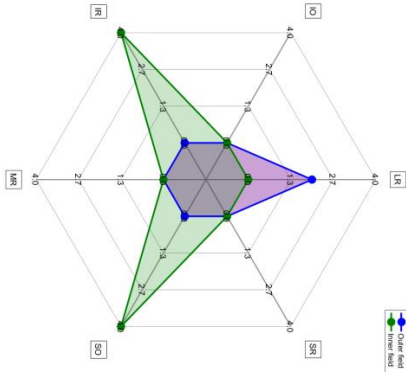


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

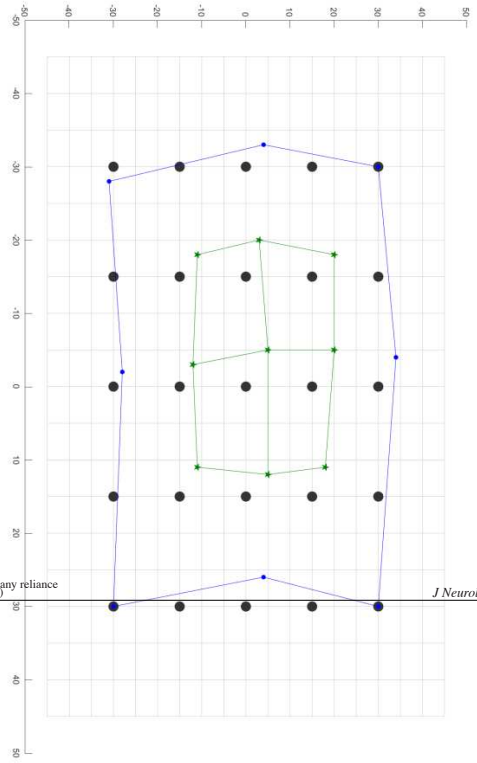
Patient number 80

## Muscles left



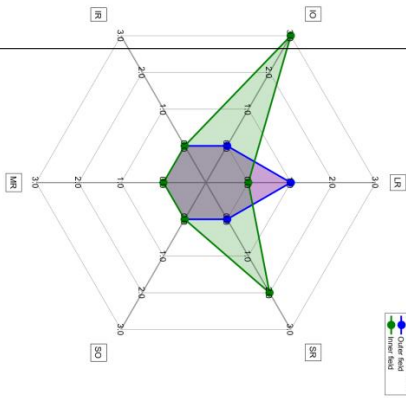
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## Hess chart left

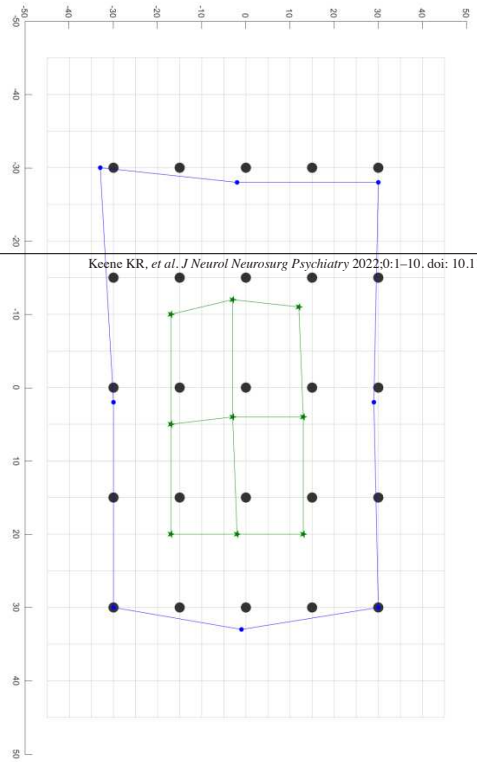


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## Muscles right



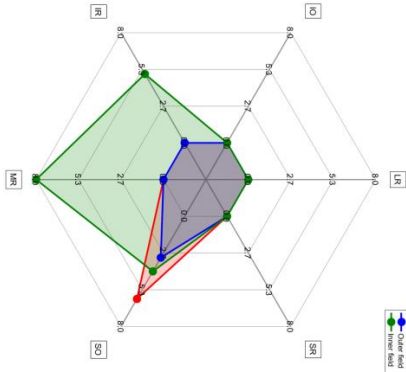
## Hess chart right



Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

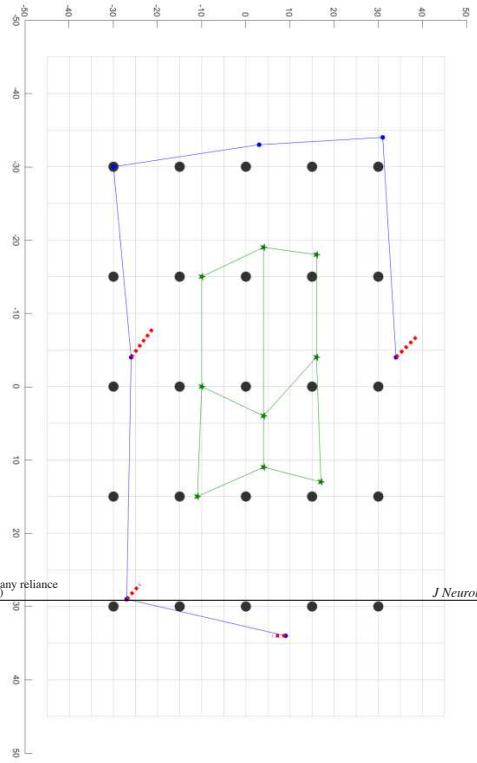
Supplemental material

## Muscles left



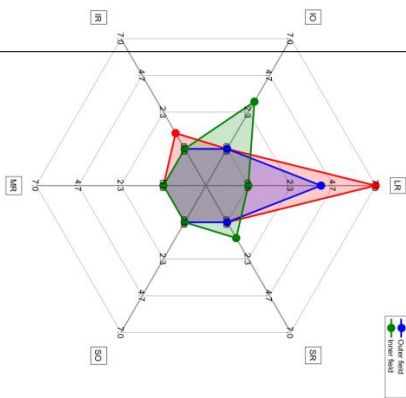
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## Hess chart left

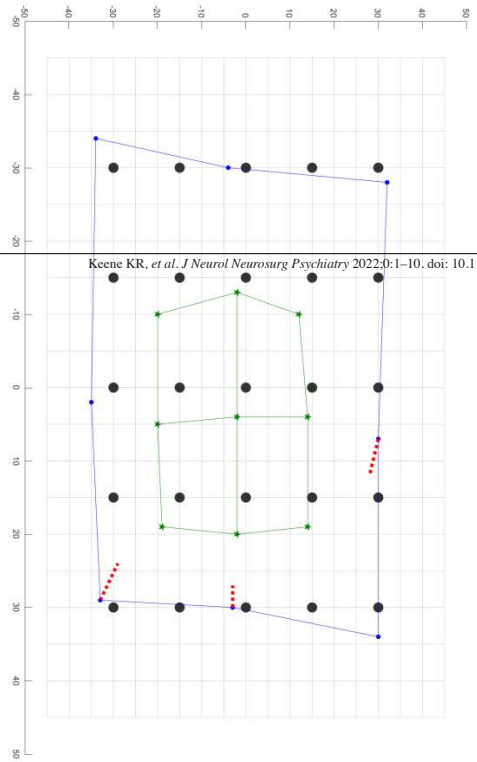


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## Muscles right



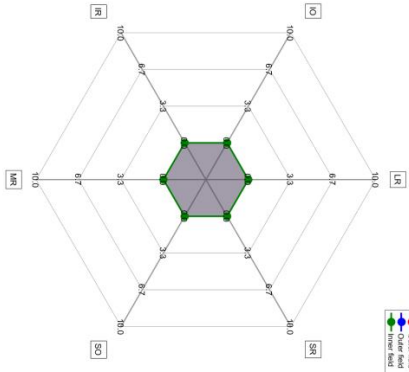
## Hess chart right



Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

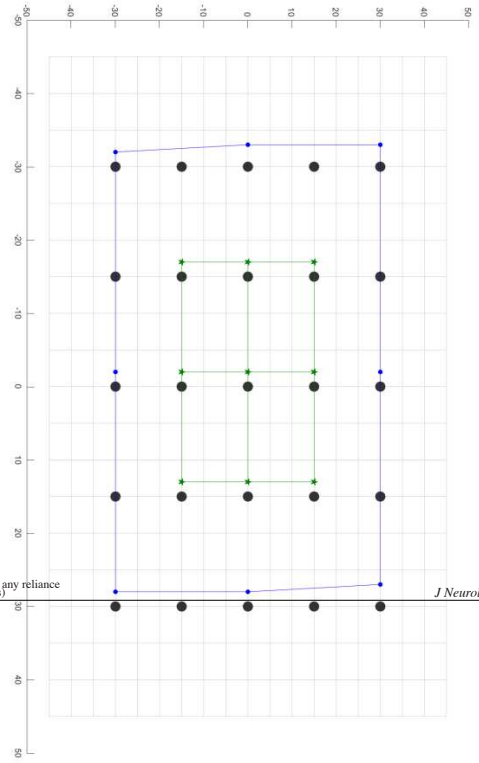
Supplemental material

### Muscles left



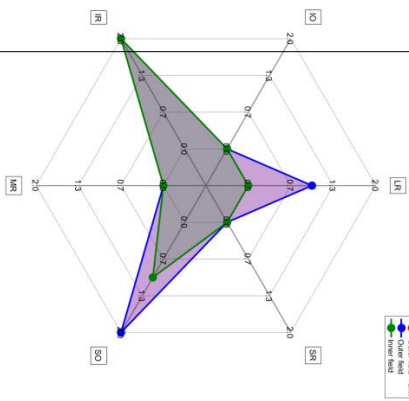
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### Hess chart left

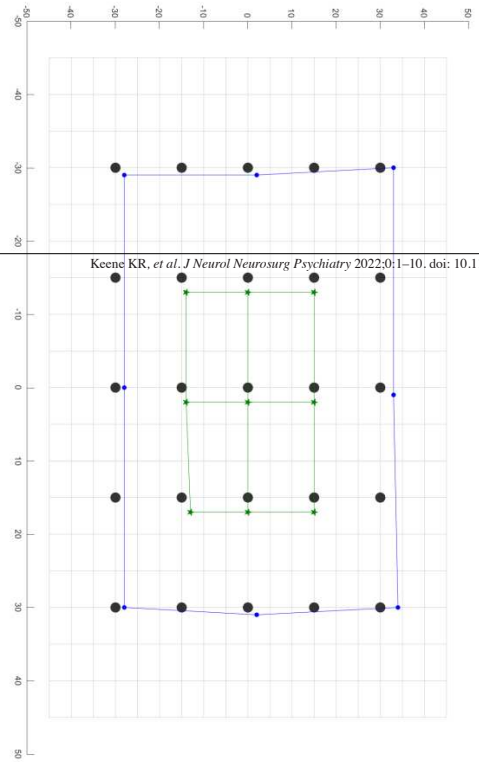


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### Muscles right



### Hess chart right

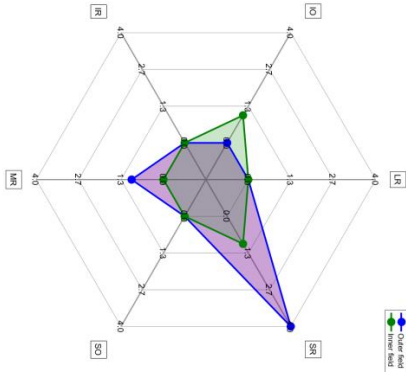


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

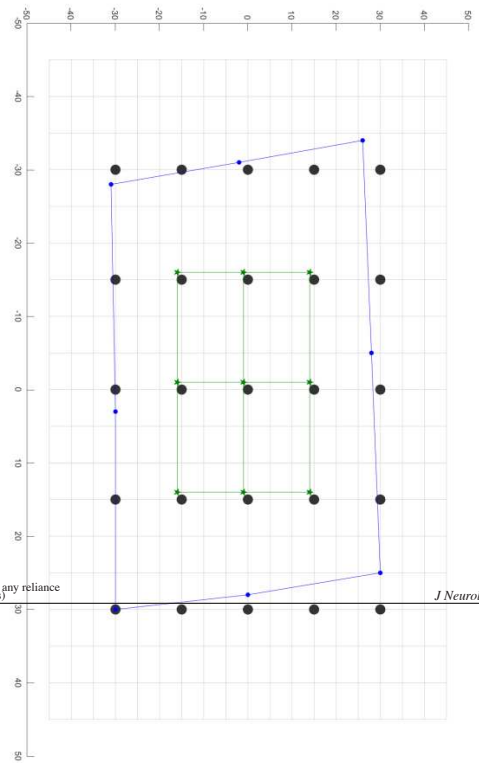
Supplemental material

Patient number 83

### Muscles left



### Hess chart left

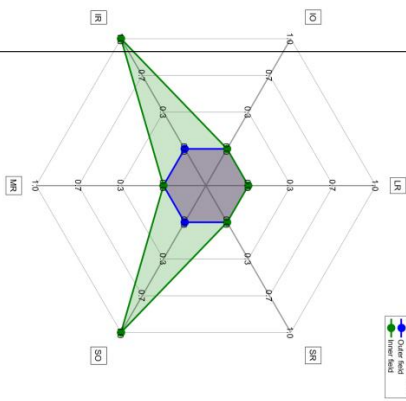


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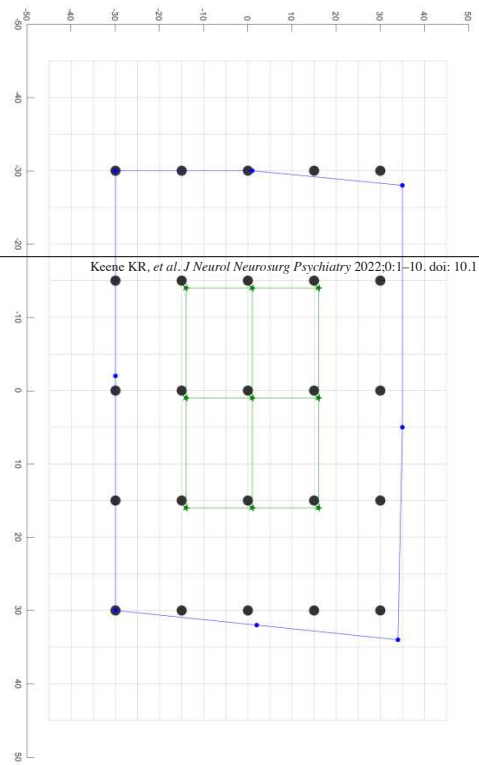
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### Muscles right



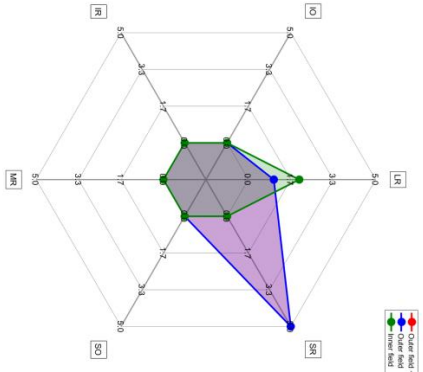
### Hess chart right



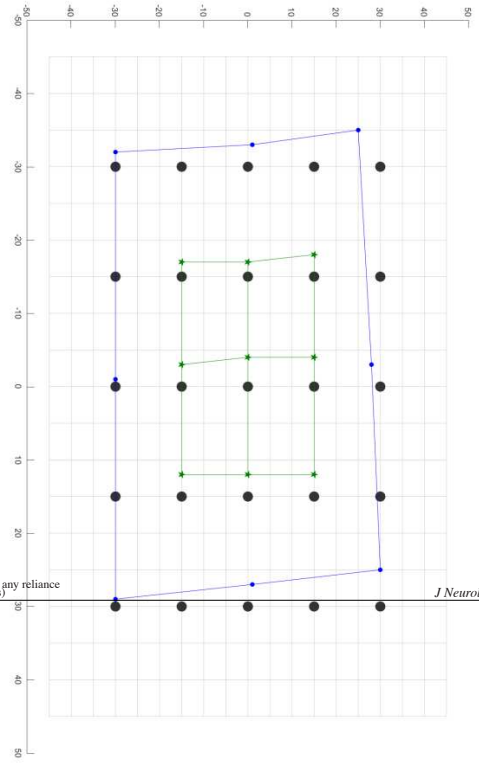
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 84

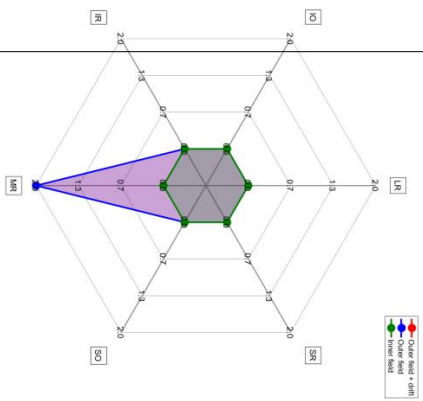
### Muscles left



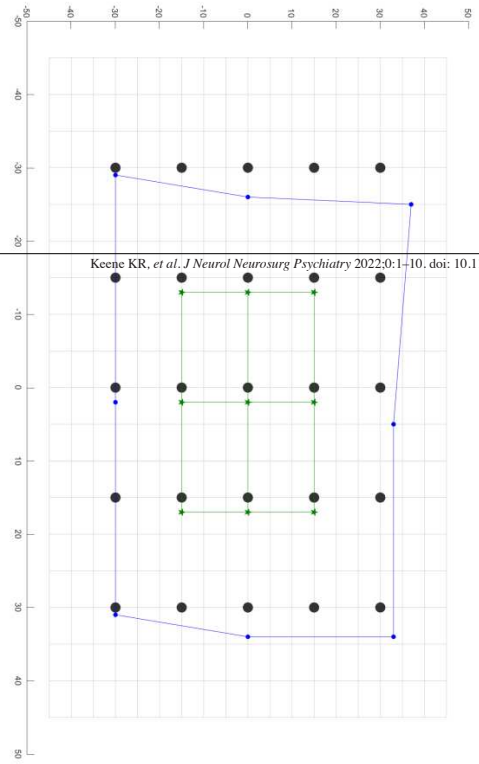
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

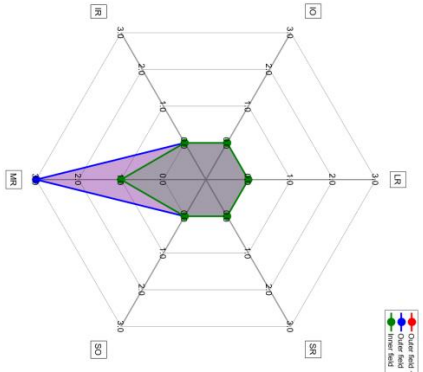
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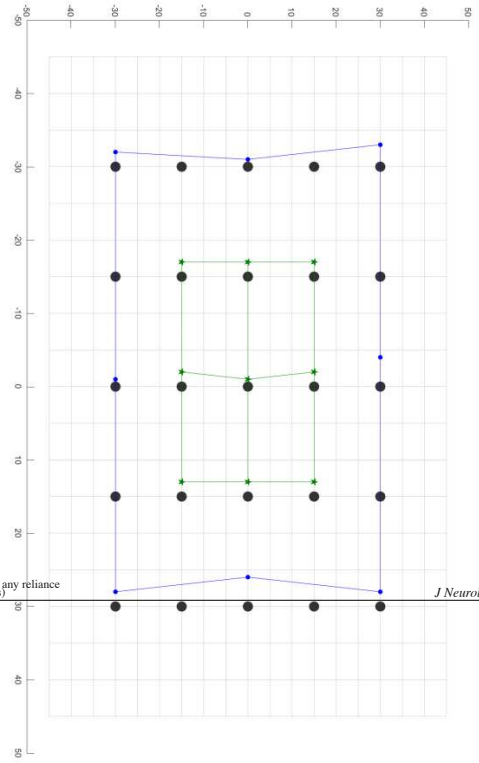
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 85

### Muscles left



### Hess chart left

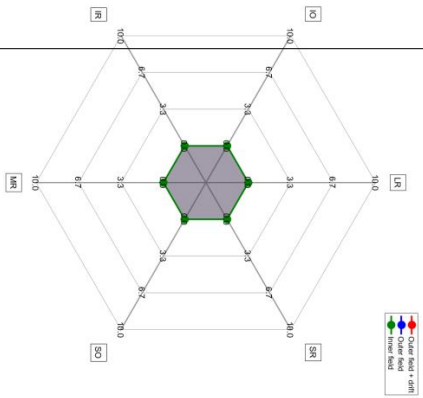


Supplemental material

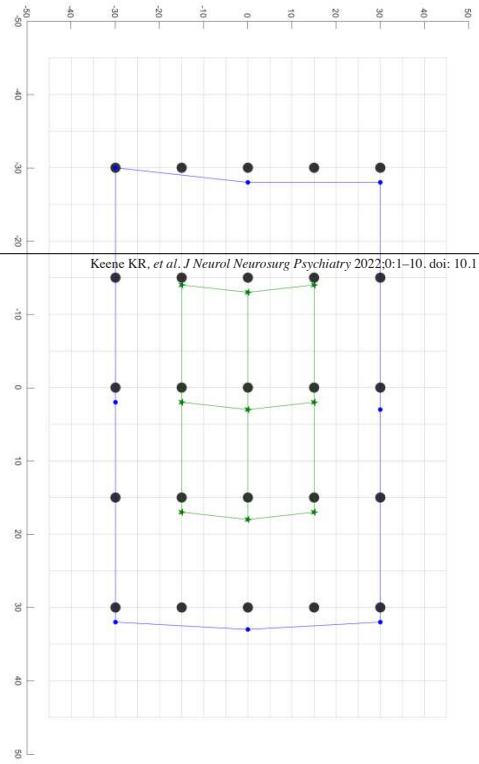
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### Muscles right



### Hess chart right

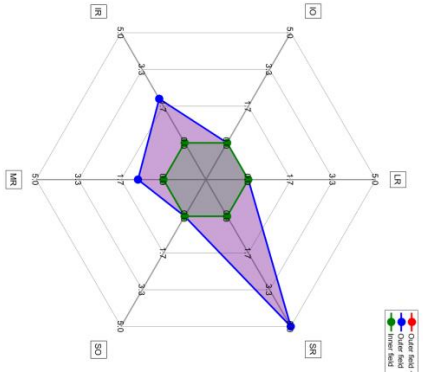


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 86

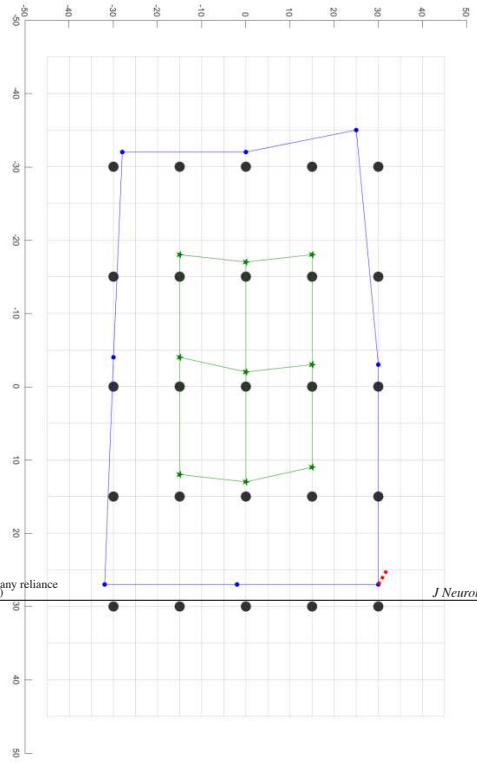


### Muscles left



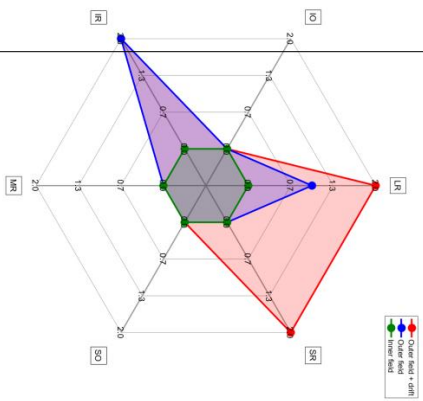
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### Hess chart left

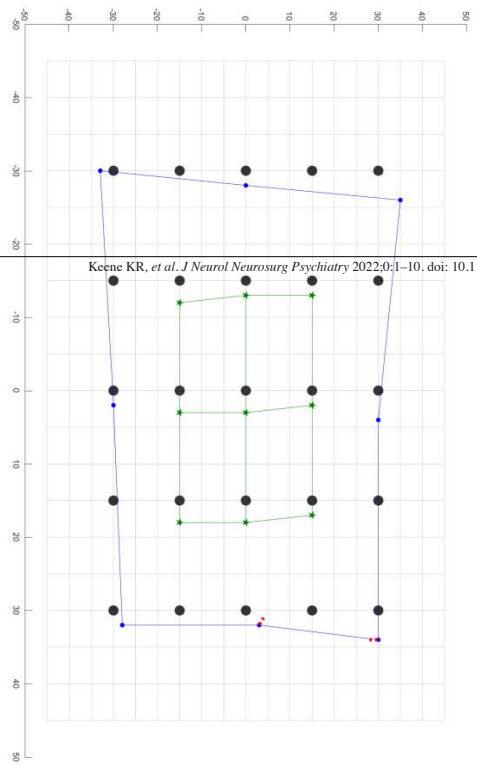


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### Muscles right



### Hess chart right

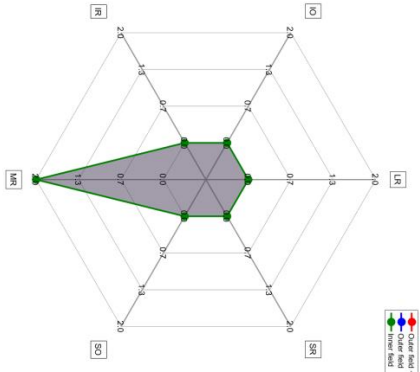


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

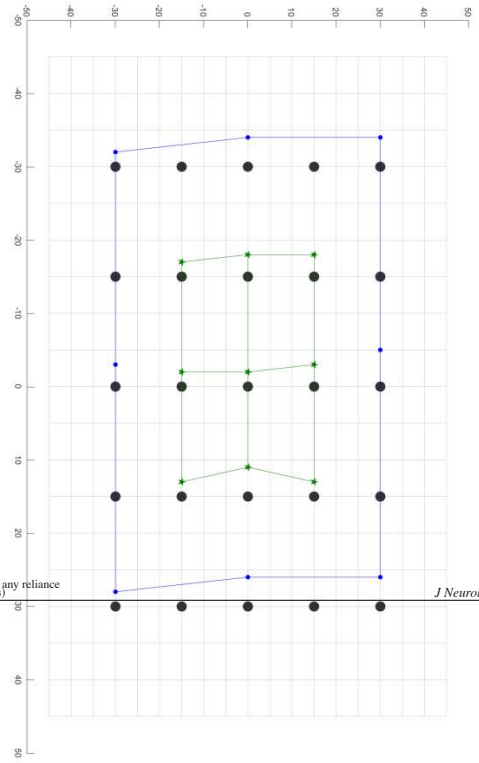
Patient number 87

### Muscles left



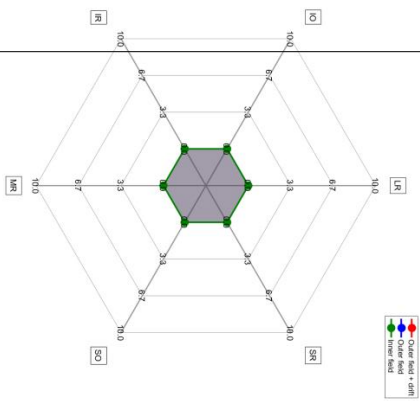
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### Hess chart left

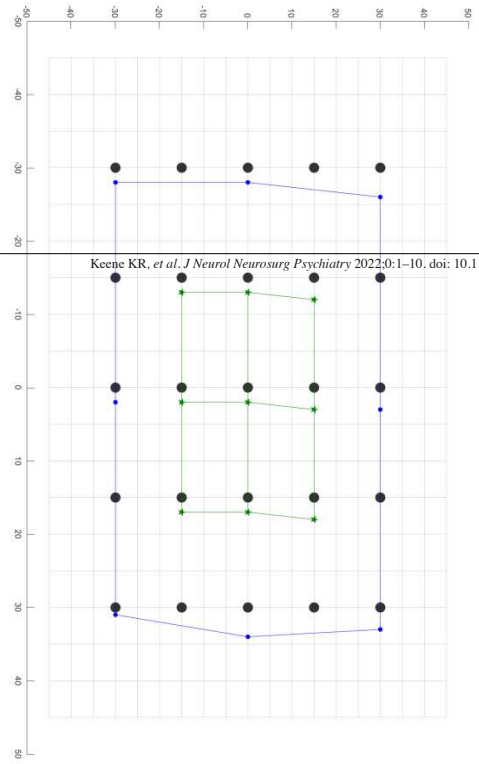


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### Muscles right



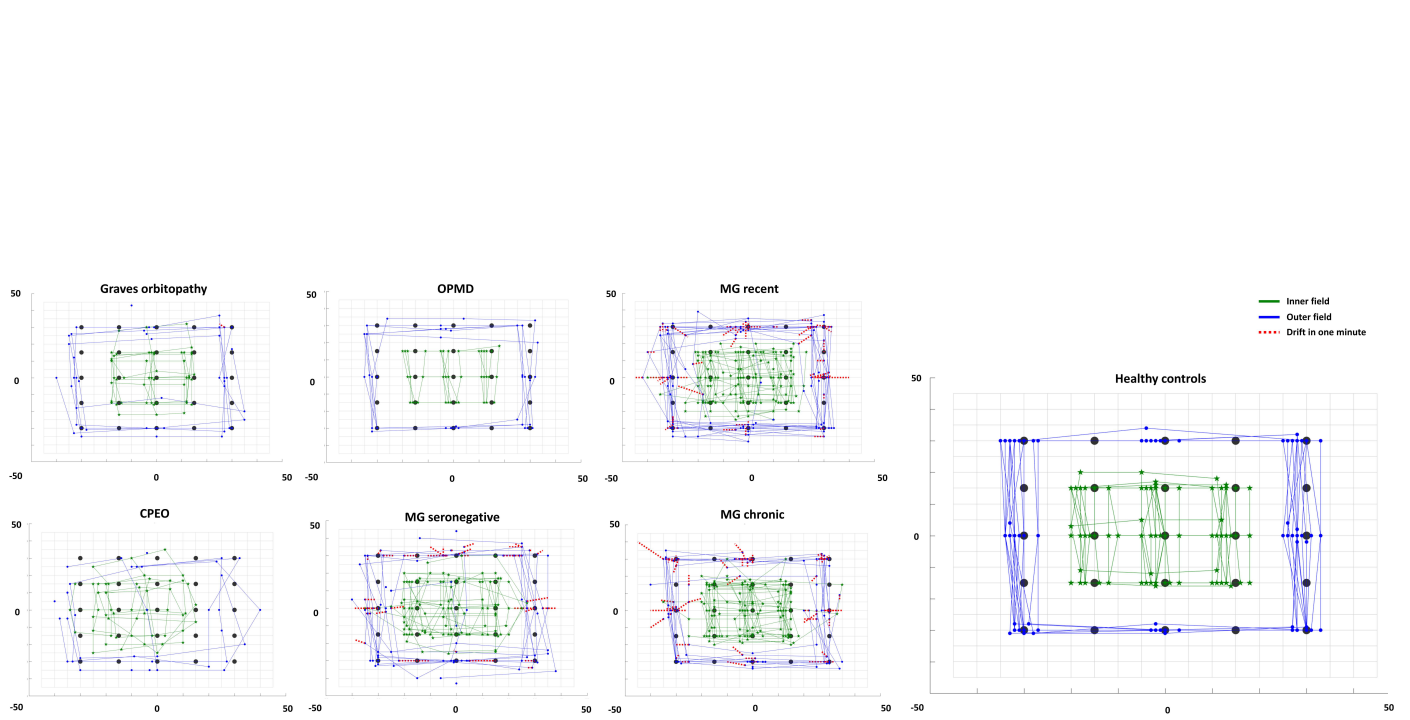
### Hess chart right



Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

Patient number 88

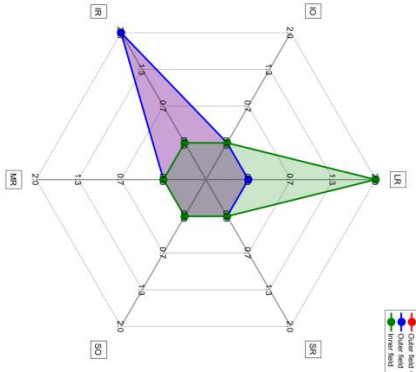


**Supplementary material****Supplementary figure 1**

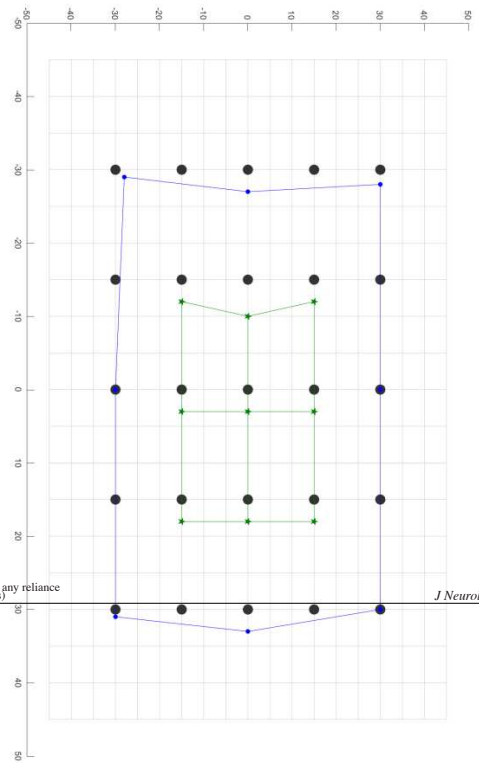
*Figure in image file*

**Supplementary figure 1.** The raw Hess charts belonging to the left eyes of all included health controls, MG subgroups, CPEO patients and OPMD patients. Individual patients are plotted on top of each other. Measurements of the inner field are plotted in green and measurements of the outer field are plotted in blue and connected. The drift after one minute is depicted with a red dashed line.

### Muscles left



### Hess chart left

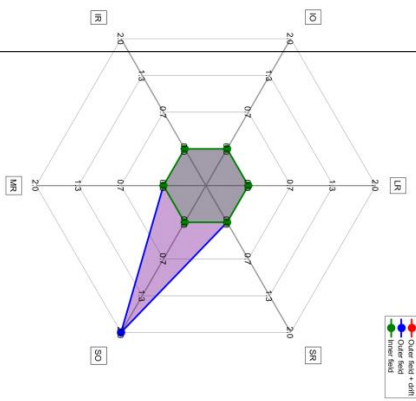


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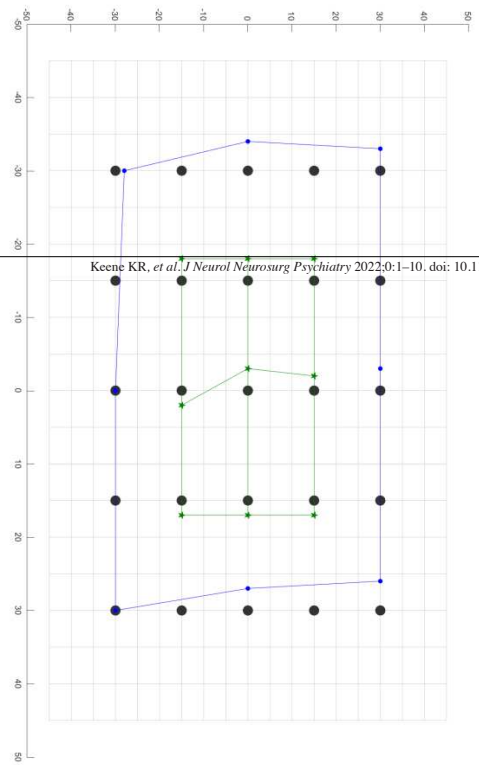
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### Muscles right



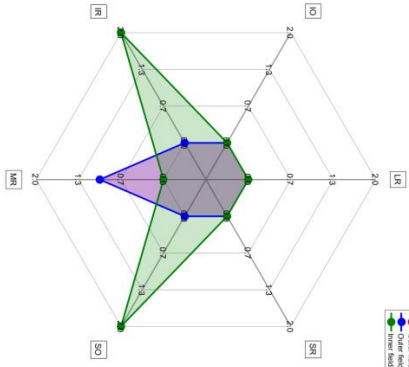
### Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

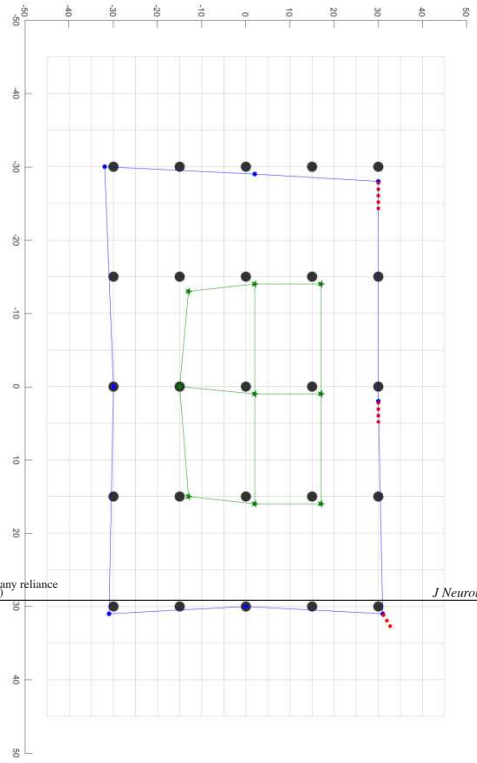
Patient number 1

### Muscles left



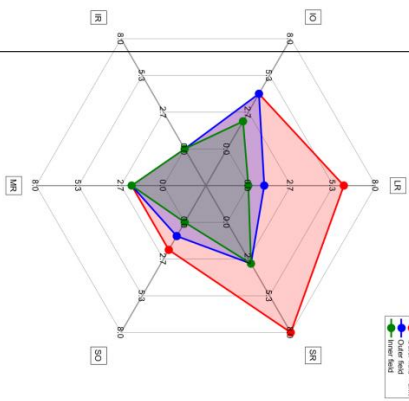
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### Hess chart left

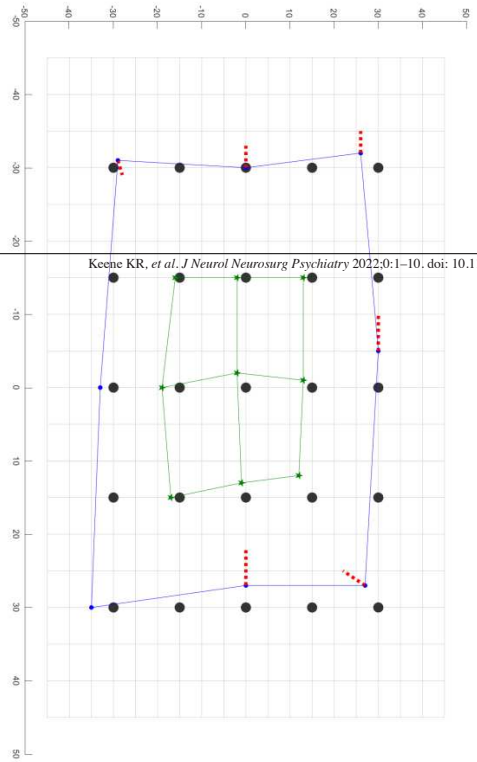


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### Muscles right



### Hess chart right

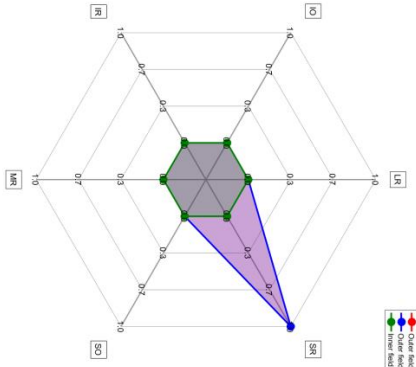


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

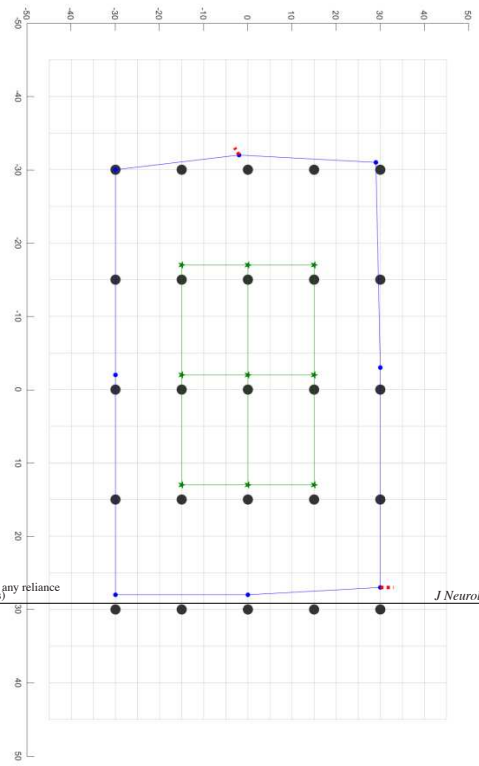
Patient number 2

### Muscles left



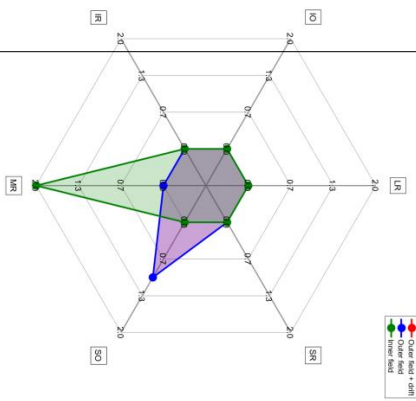
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### Hess chart left

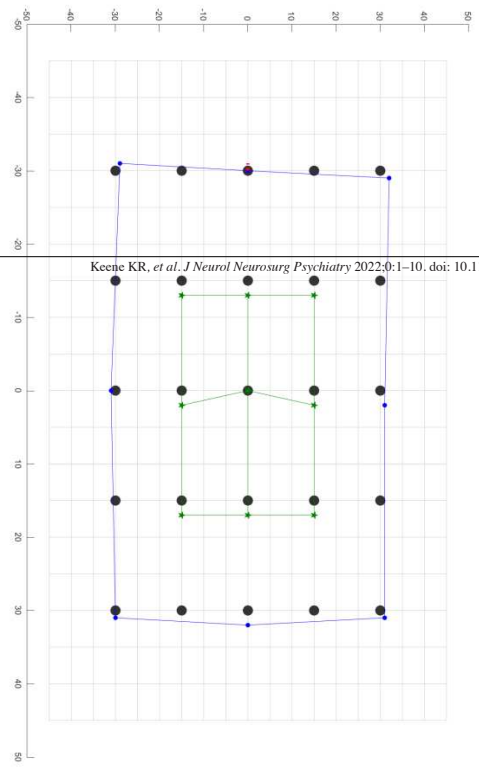


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### Muscles right



### Hess chart right

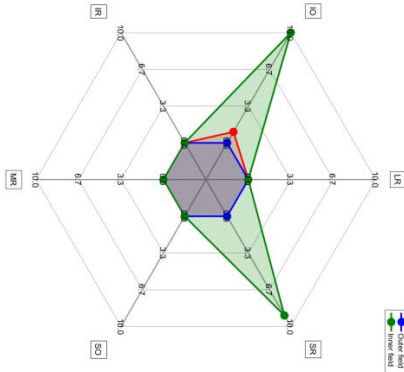


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

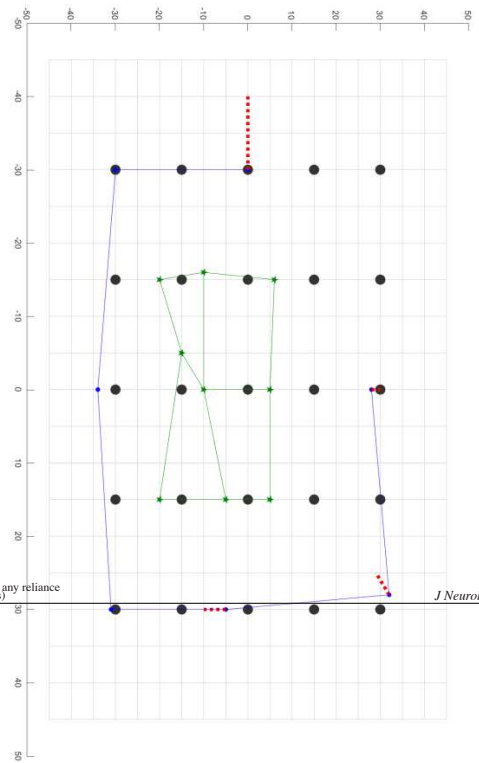
Patient number 3

## Muscles left



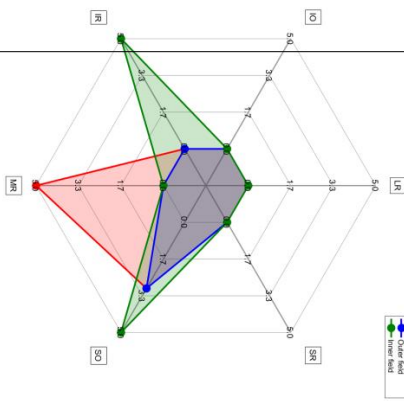
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## Hess chart left

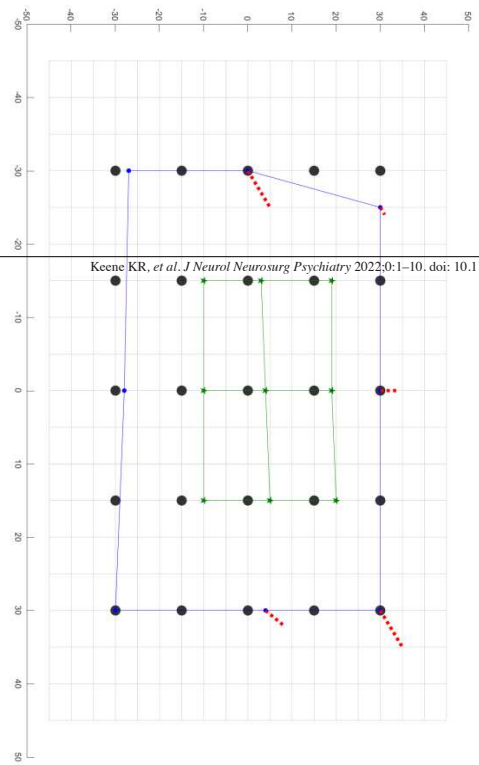


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## Muscles right



## Hess chart right



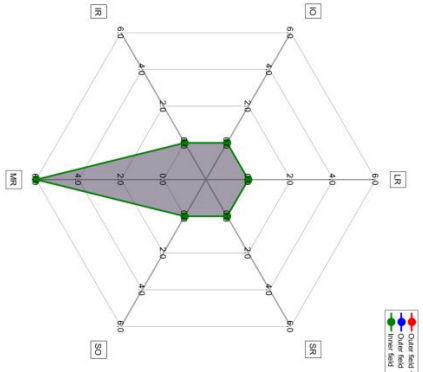
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

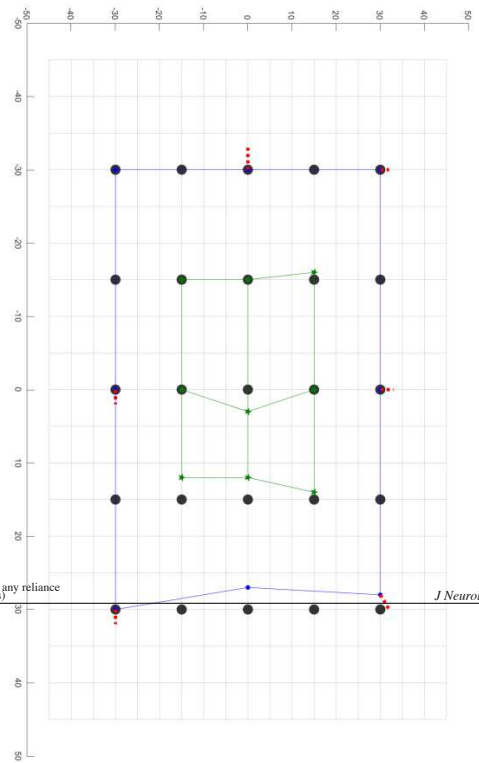
Patient number 4



### Muscles left



### Hess chart left

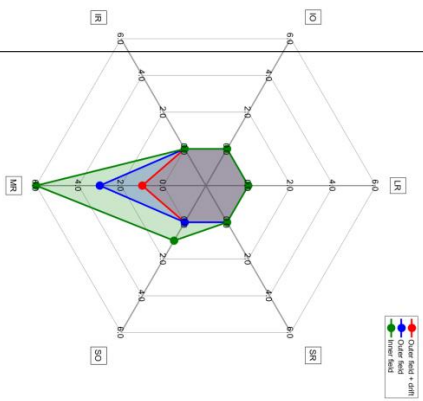


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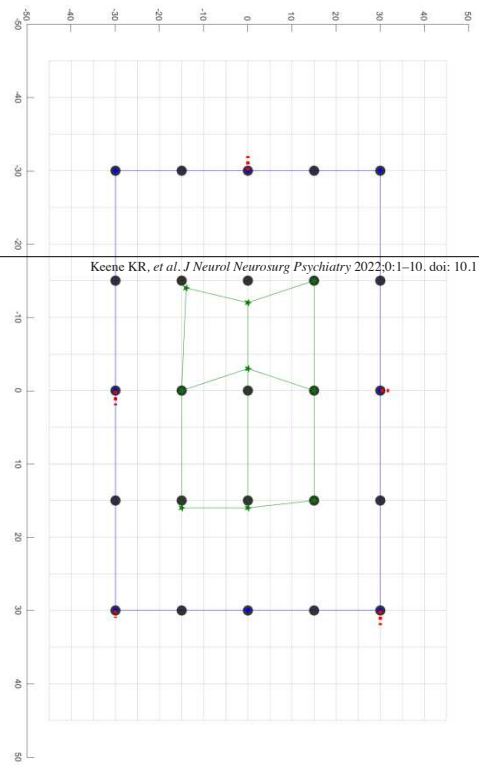
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### Muscles right



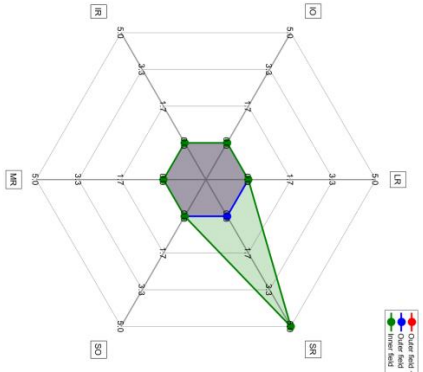
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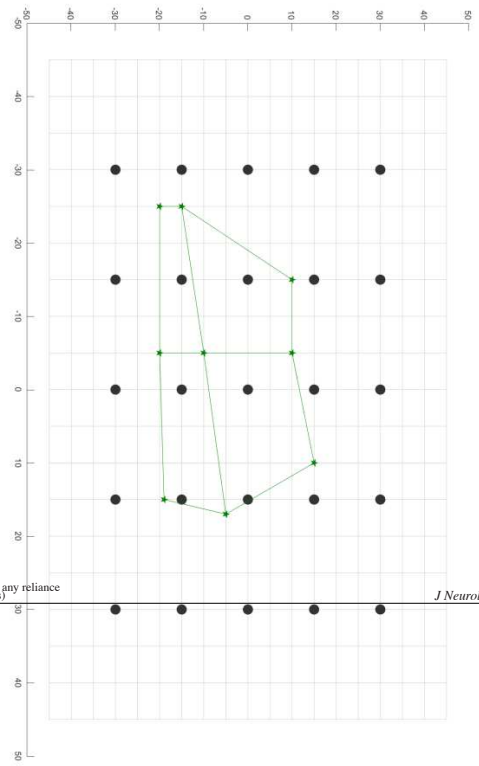
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 5

### Muscles left



### Hess chart left

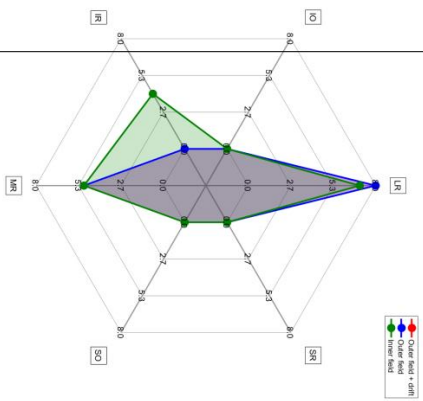


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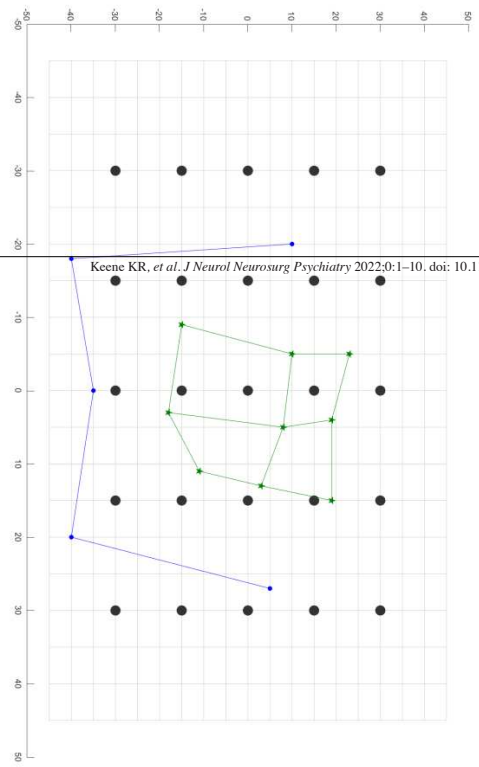
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### Muscles right



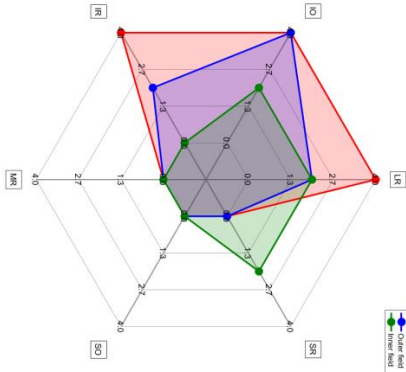
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Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

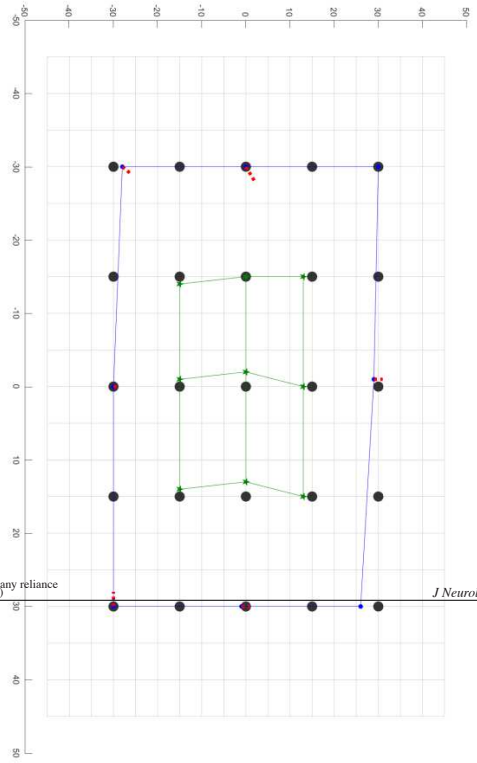
Patient number 6

## Muscles left



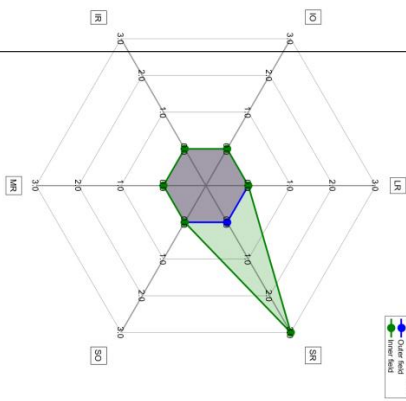
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## Hess chart left

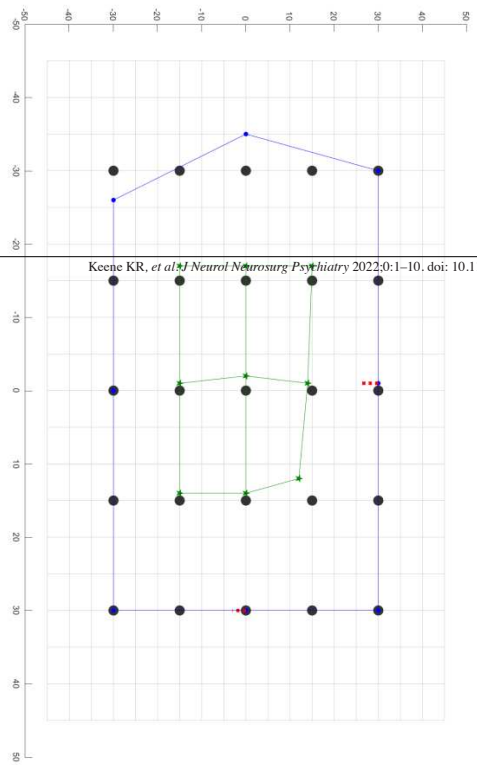


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## Muscles right



## Hess chart right

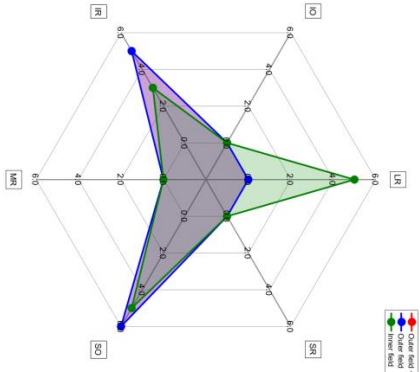


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Supplemental material

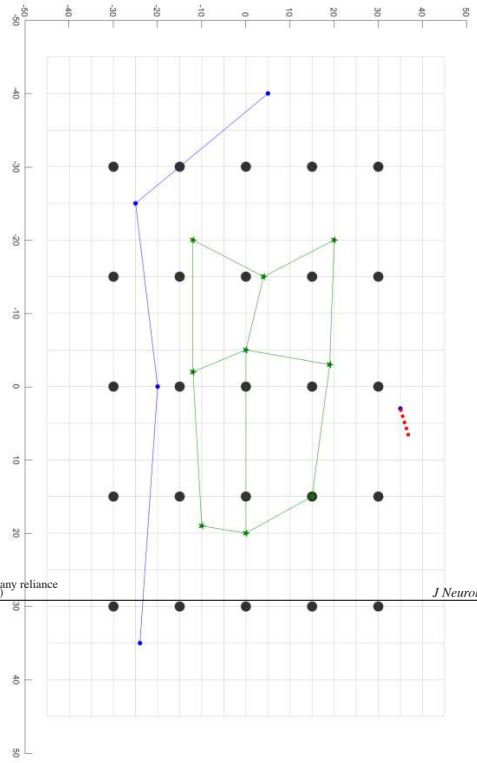
Patient number 7

### Muscles left



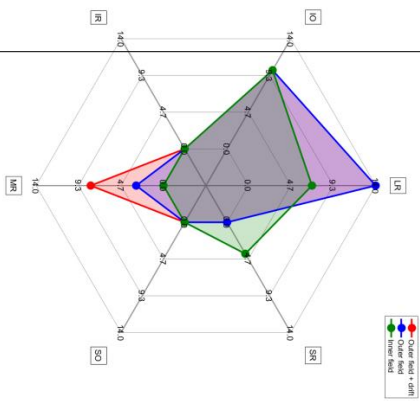
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### Hess chart left

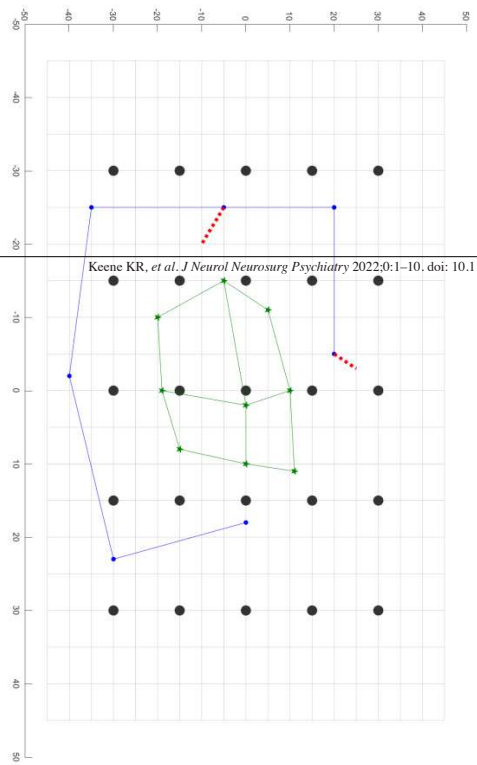


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### Muscles right



### Hess chart right

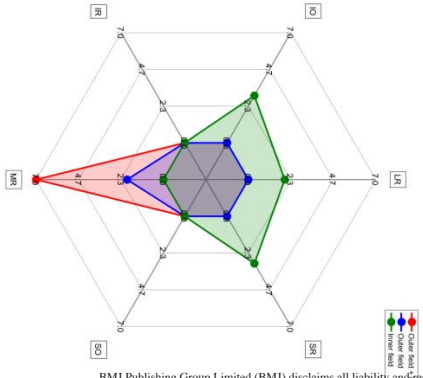


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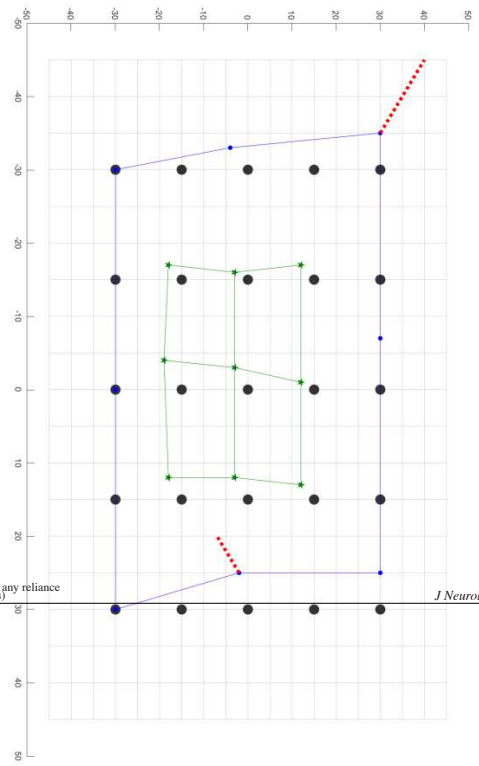
Supplemental material

Patient number 8

### Muscles left



### Hess chart left

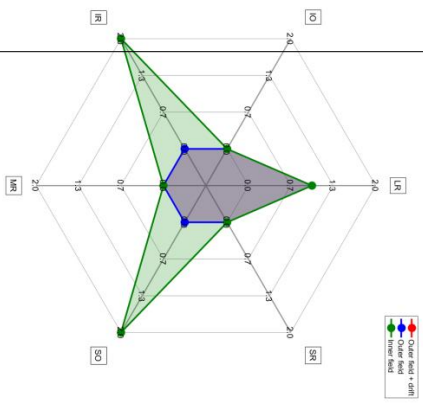


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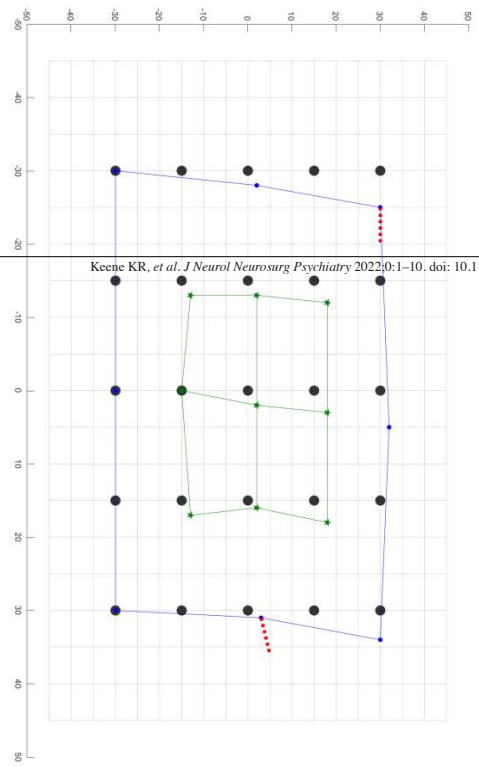
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### Muscles right



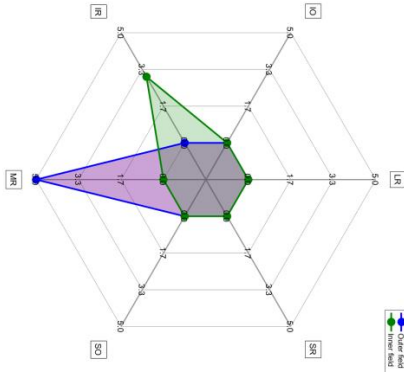
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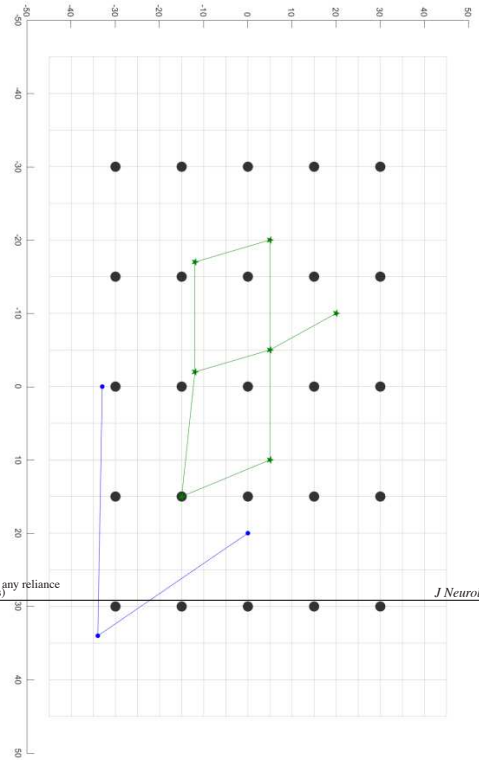
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 9

## Muscles left



## Hess chart left

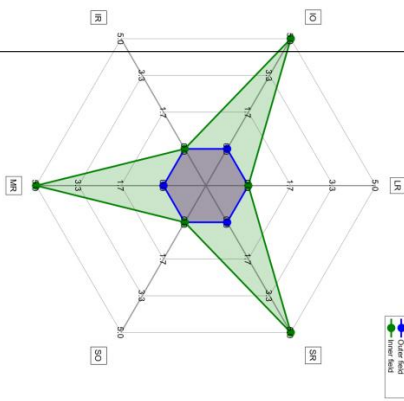


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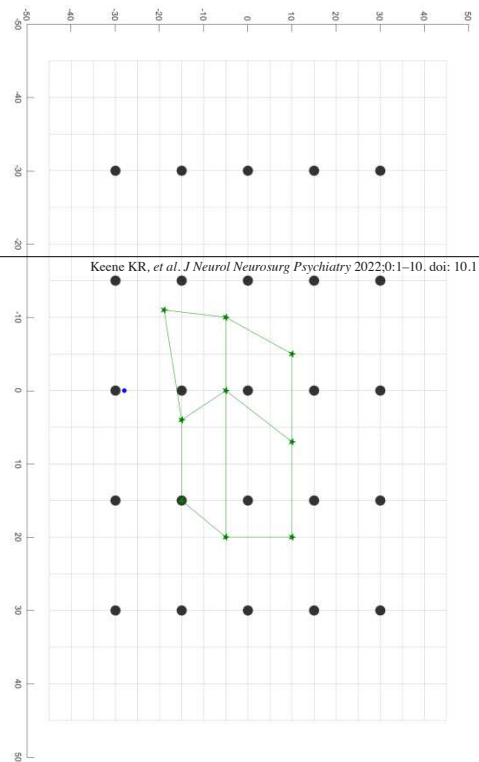
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## Muscles right



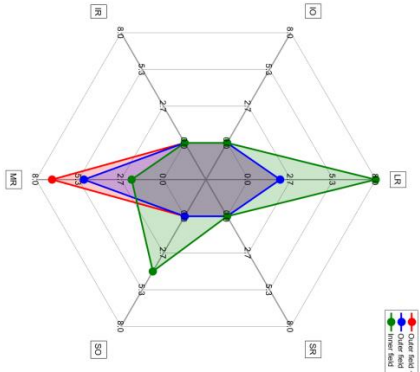
## Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

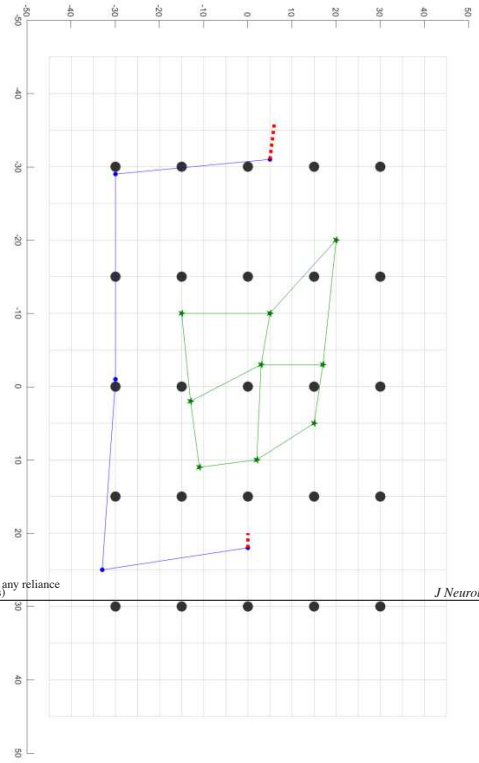
Patient number 10

## Muscles left



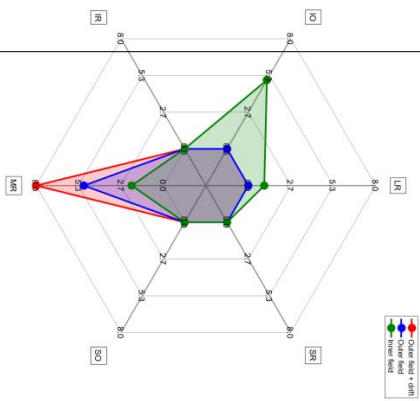
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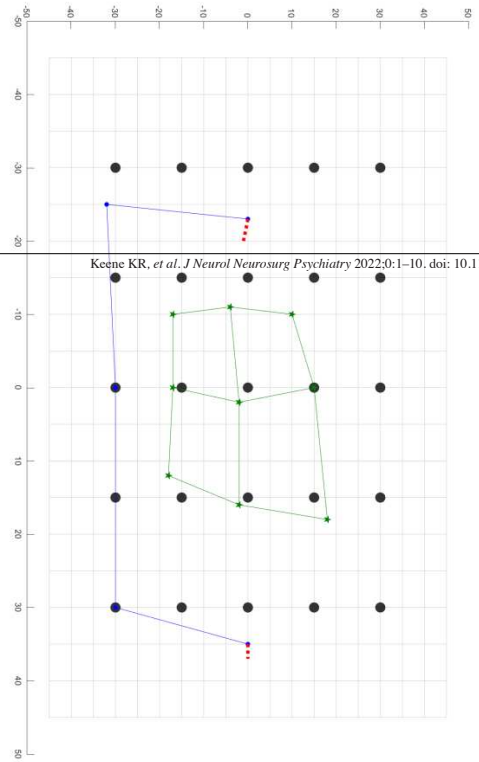


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## Muscles right



## Hess chart right

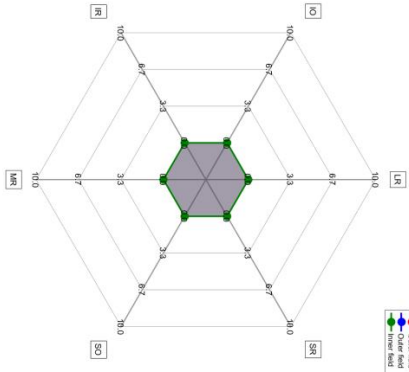


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

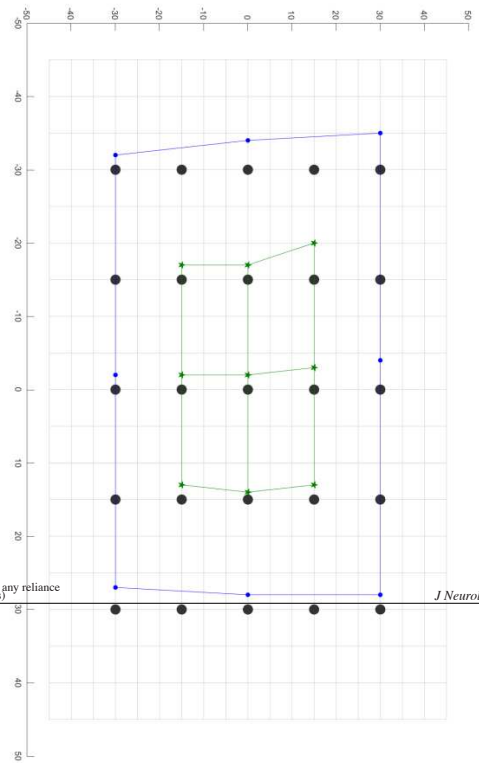
Supplemental material

Patient number 11

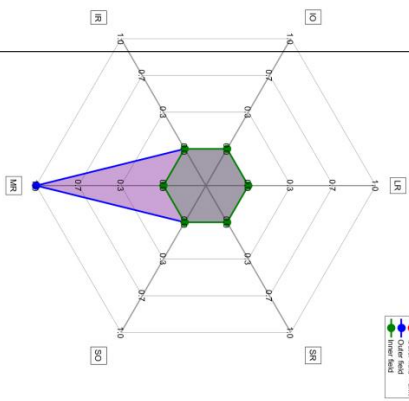
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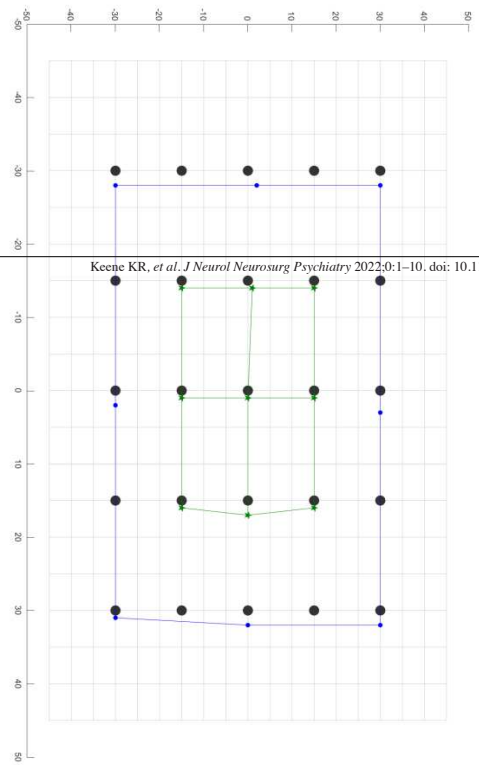
### Hess chart left



### Muscles right

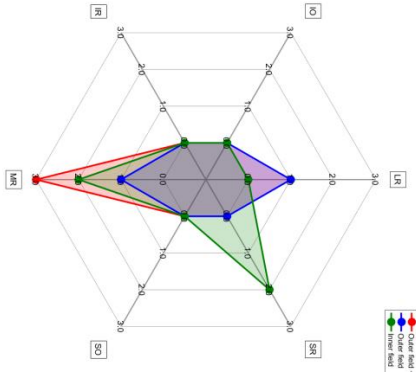


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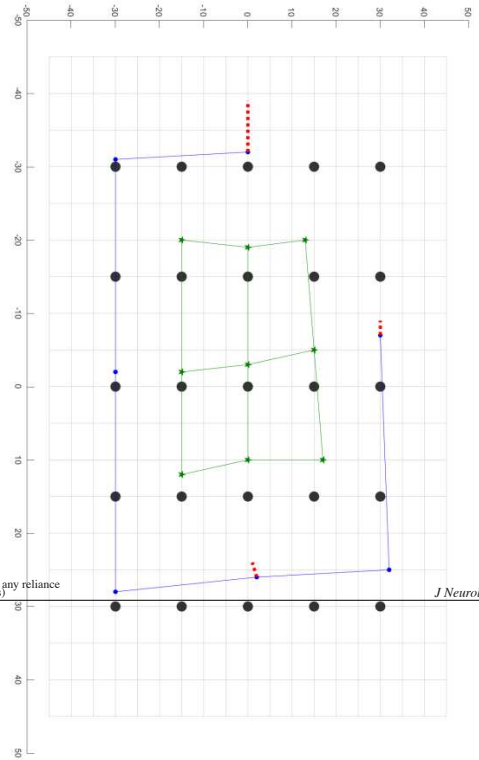


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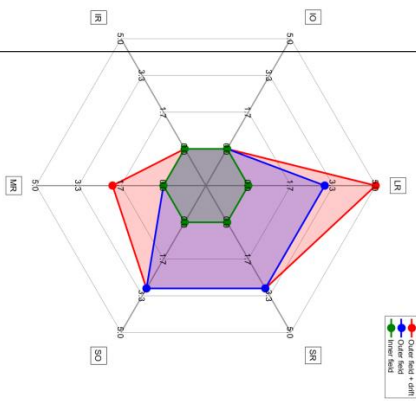
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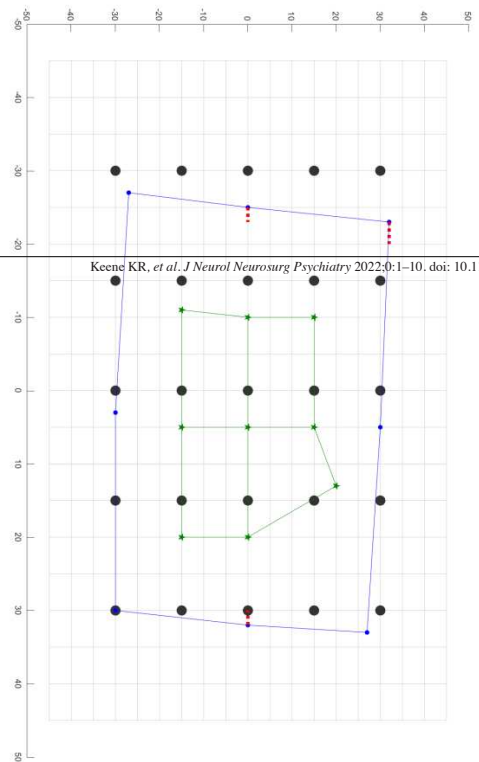


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## Muscles right



## Hess chart right

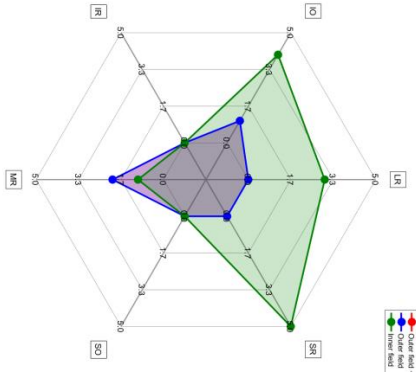


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

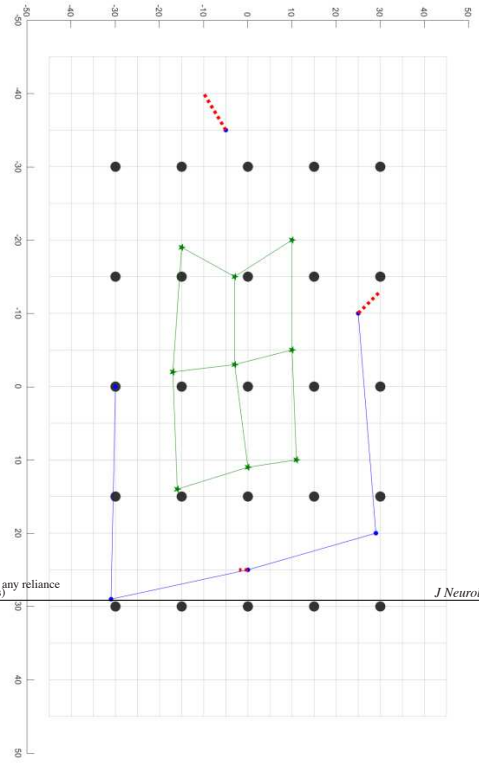
Patient number 13

### Muscles left



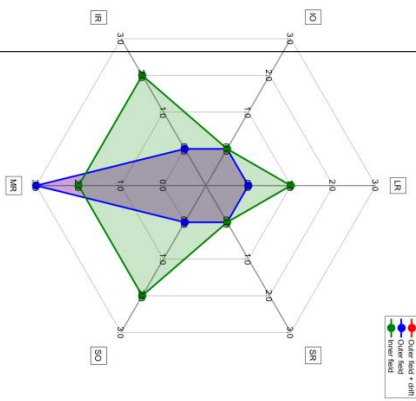
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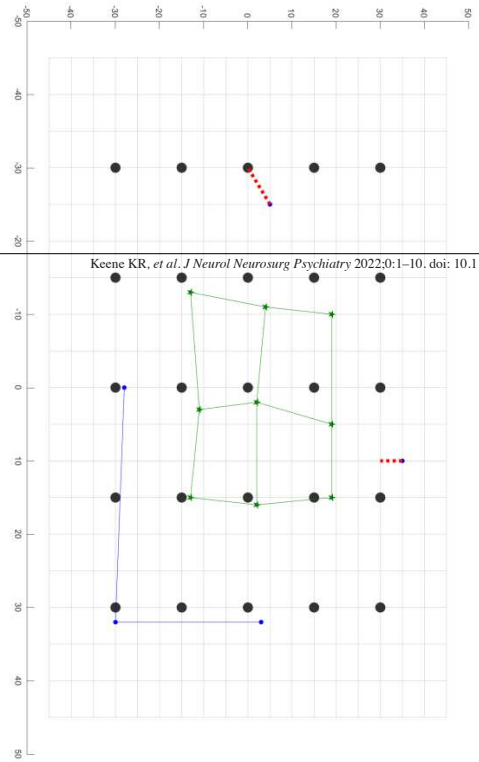


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### Muscles right



### Hess chart right

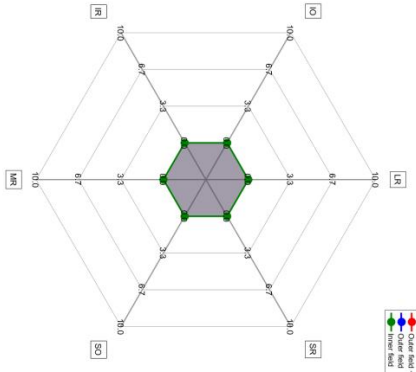


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

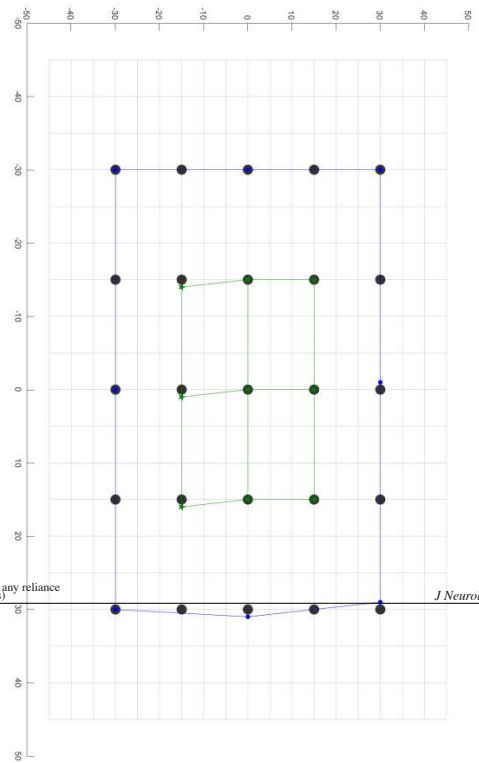
Supplemental material

Patient number 14

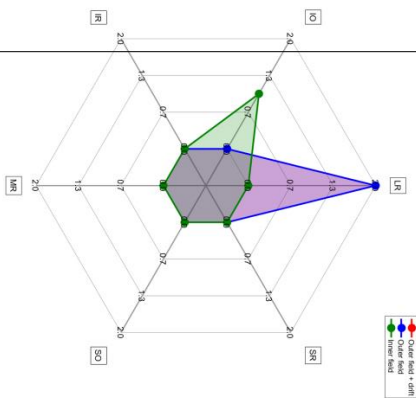
### Muscles left



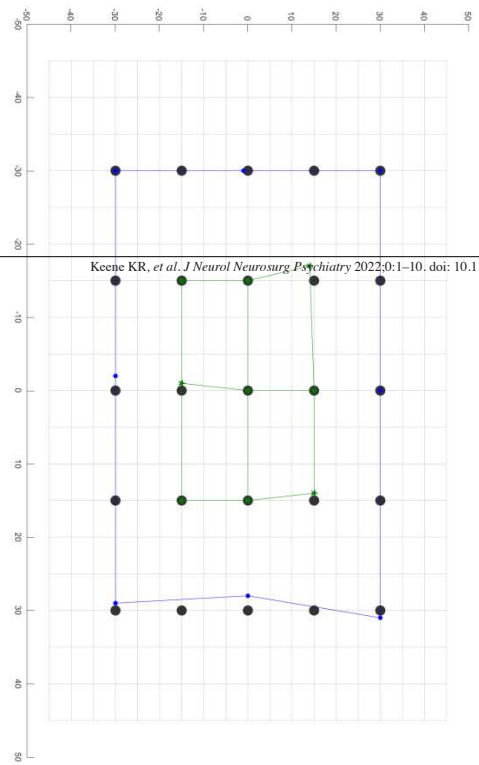
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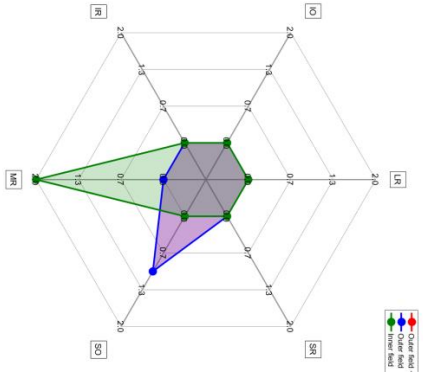
### Muscles right



### Hess chart right

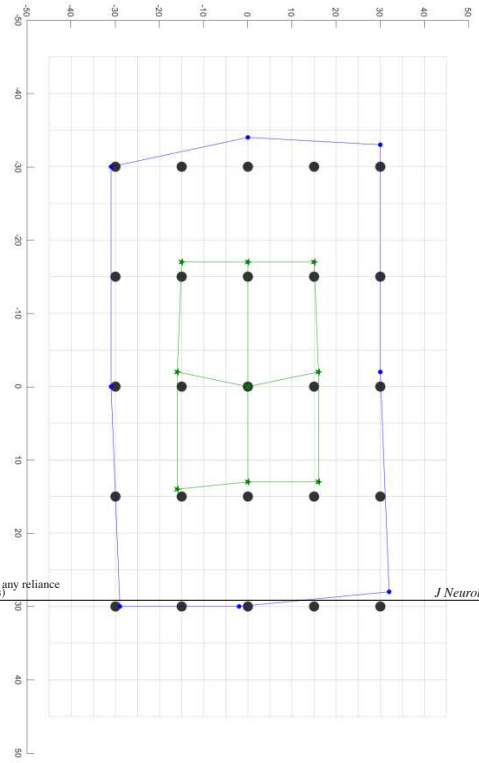


### Muscles left



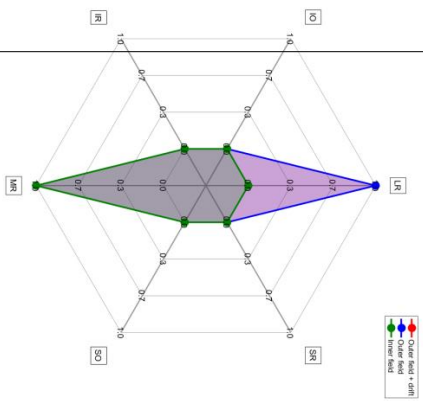
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### Hess chart left

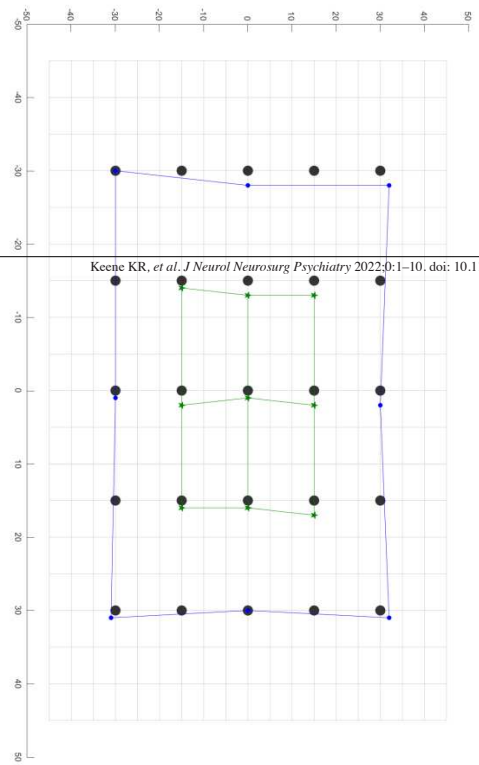


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### Muscles right



### Hess chart right

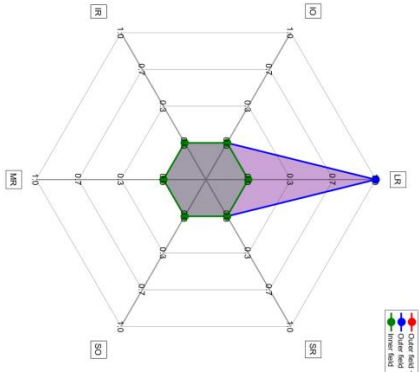


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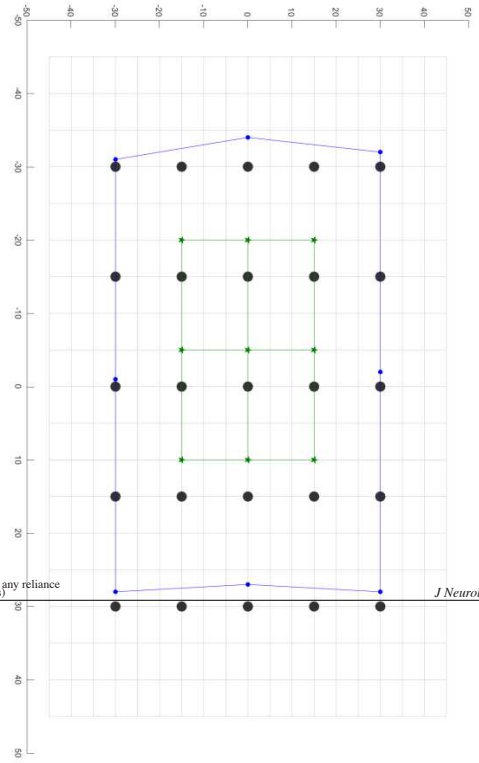
Patient number 16

## Muscles left



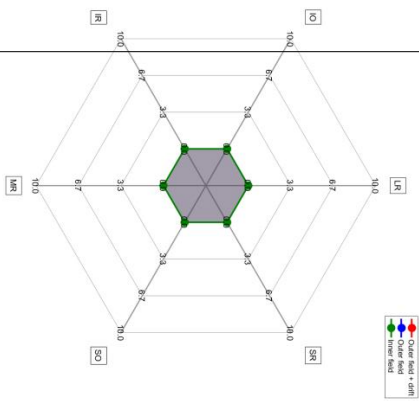
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## Hess chart left

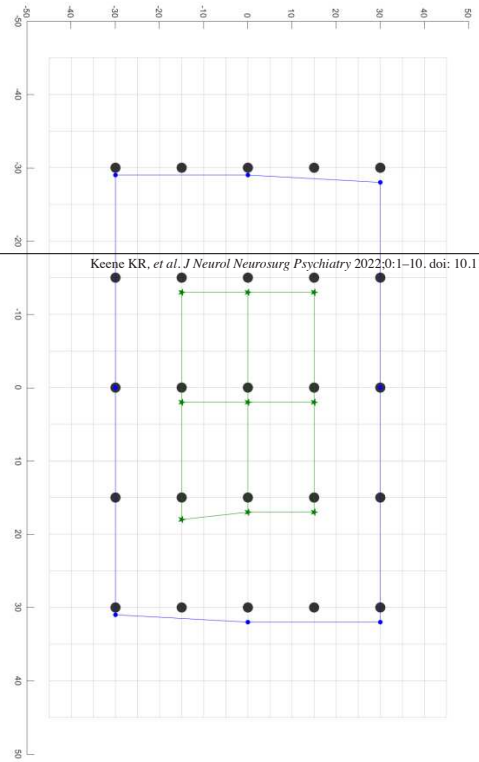


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## Muscles right



## Hess chart right

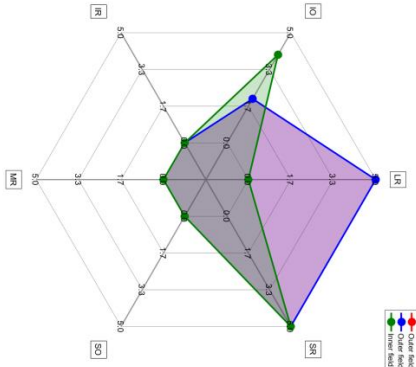


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Supplemental material

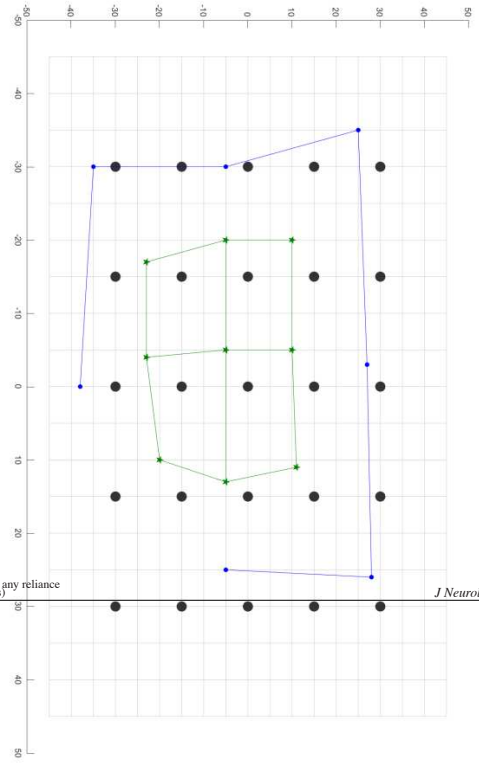
Patient number 17

## Muscles left



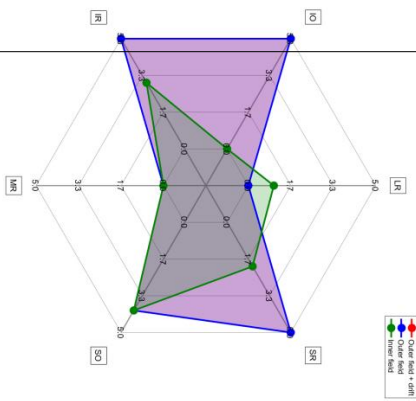
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## Hess chart left

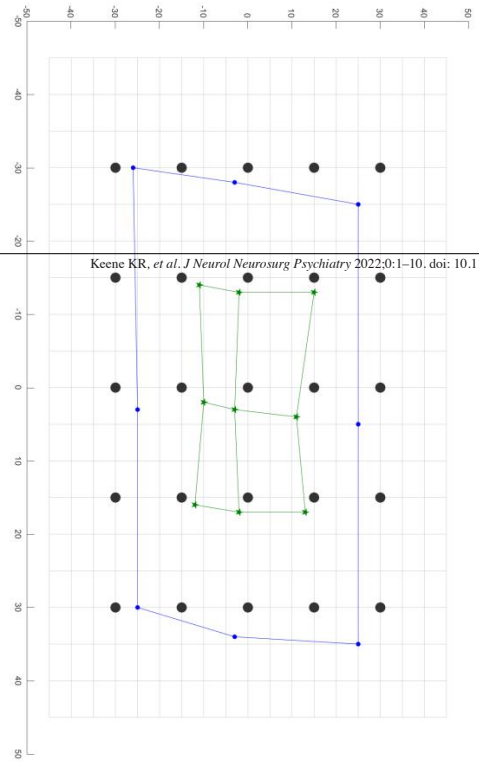


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## Muscles right



## Hess chart right

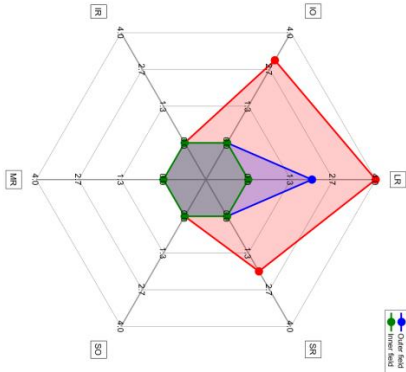


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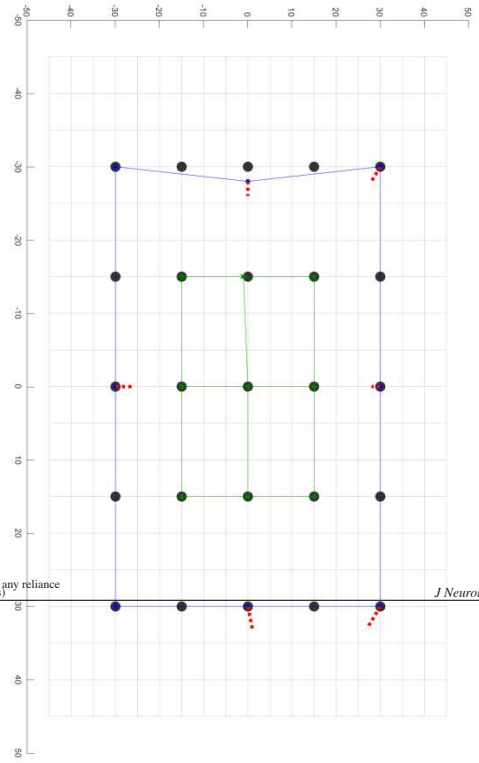
Patient number 18

## Muscles left



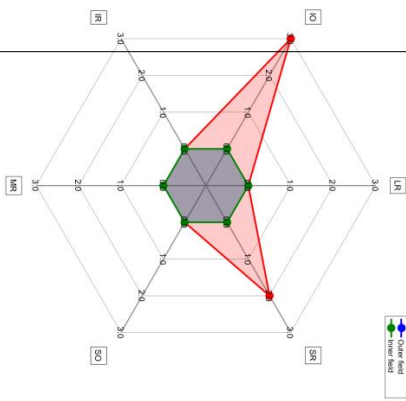
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## Hess chart left

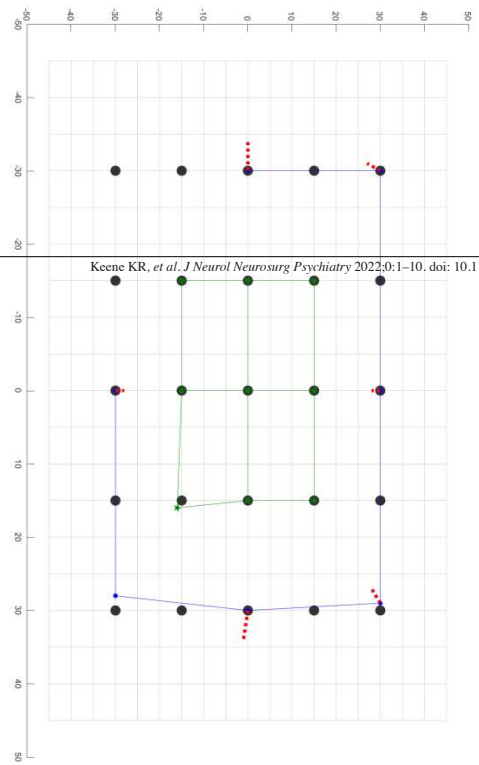


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## Muscles right



## Hess chart right

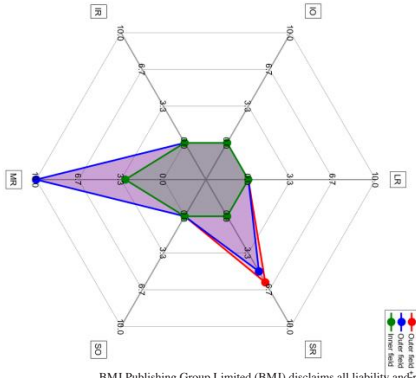


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

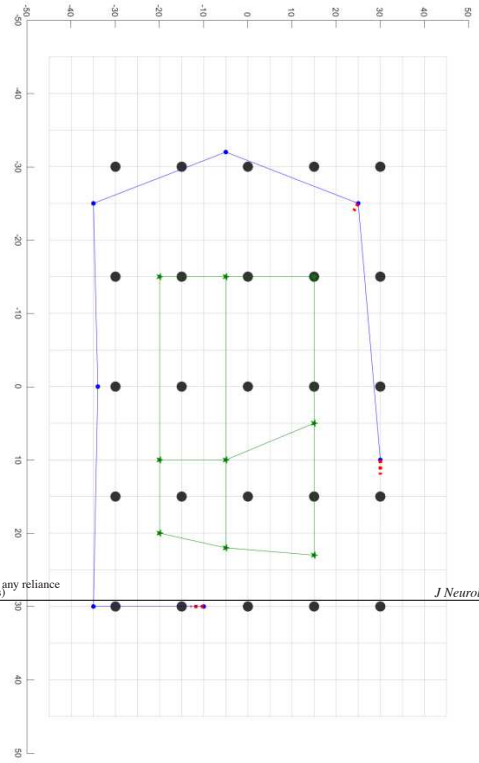
Supplemental material

Patient number 19

## Muscles left



## Hess chart left

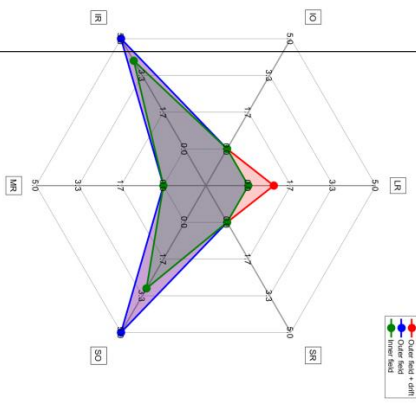


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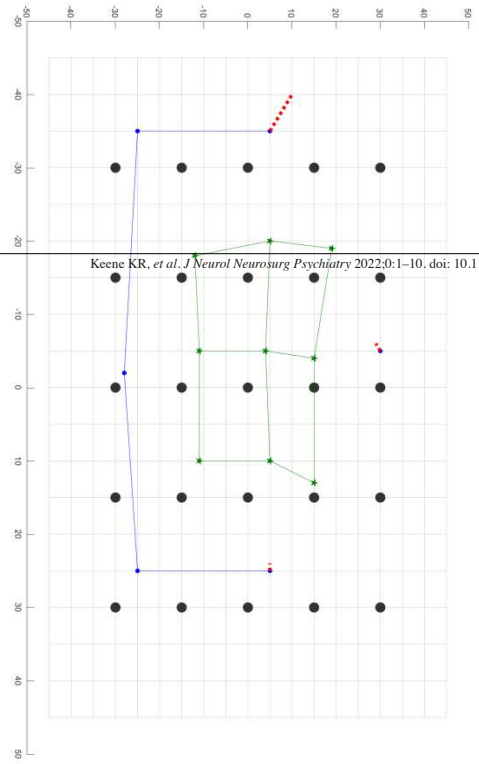
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## Muscles right



## Hess chart right

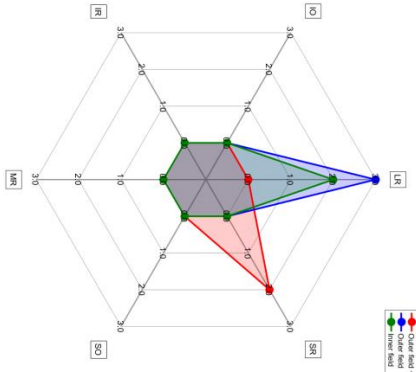


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

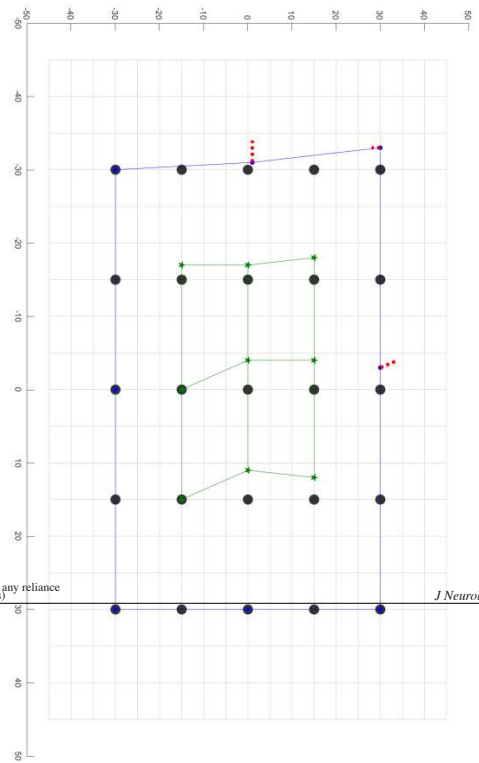
Patient number 20



### Muscles left



### Hess chart left

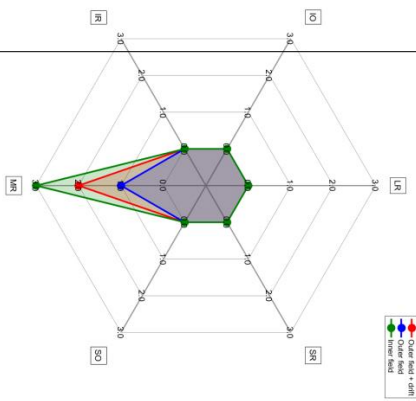


Supplemental material

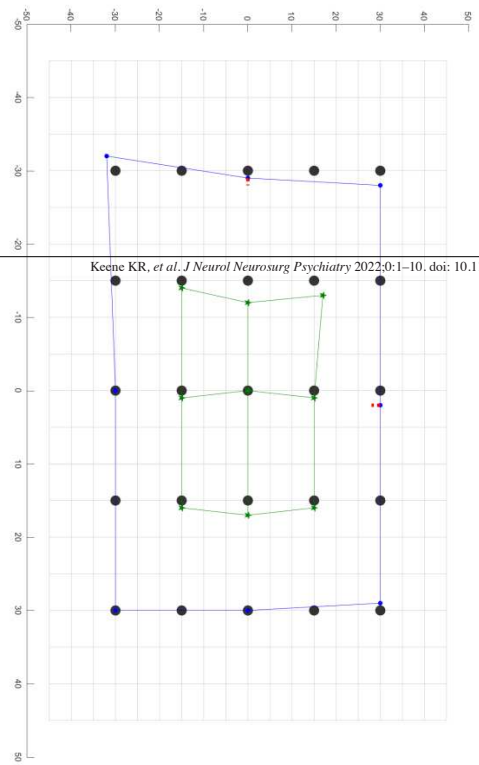
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### Muscles right



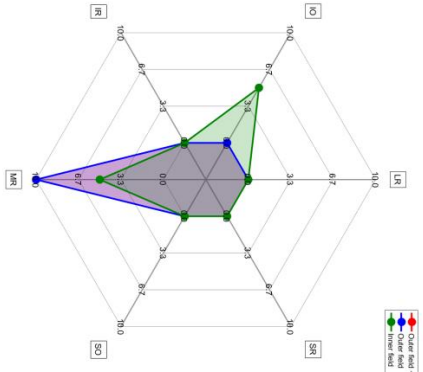
### Hess chart right



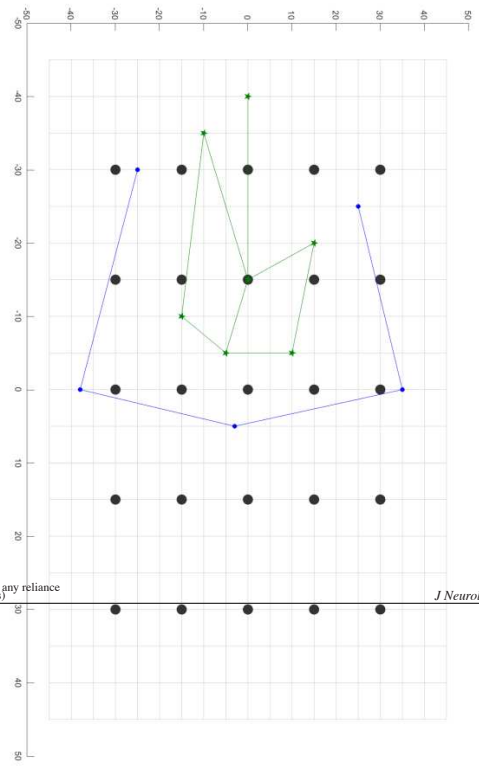
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 21

### Muscles left



### Hess chart left

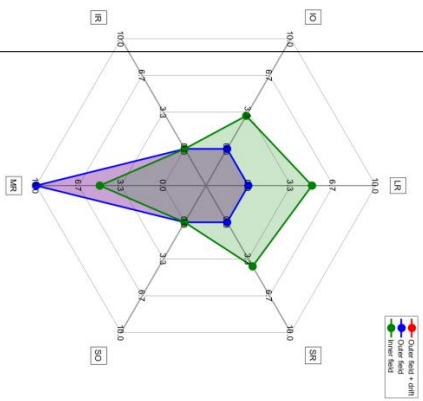


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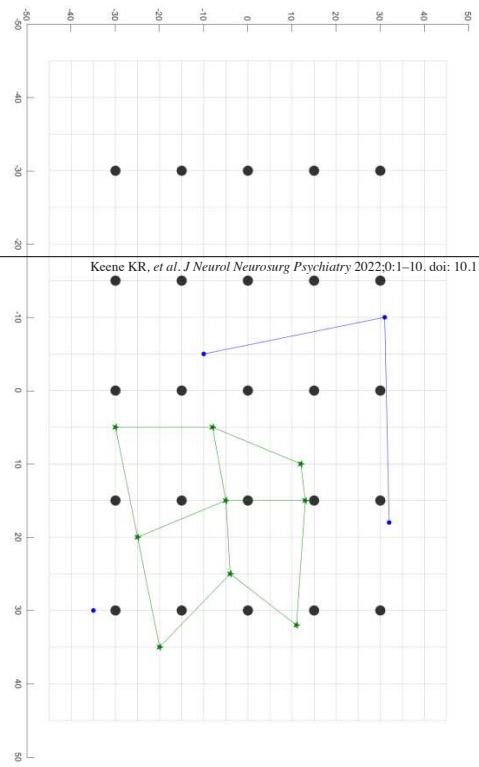
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### Muscles right



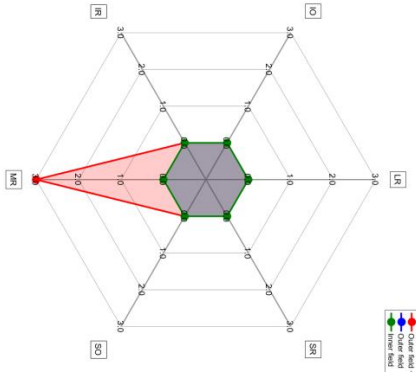
### Hess chart right



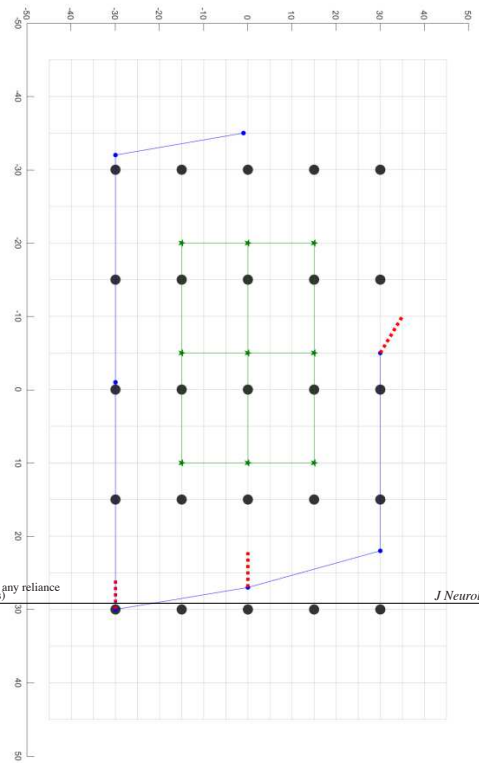
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 22

### Muscles left



### Hess chart left

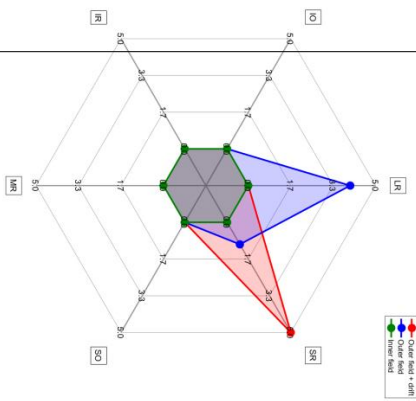


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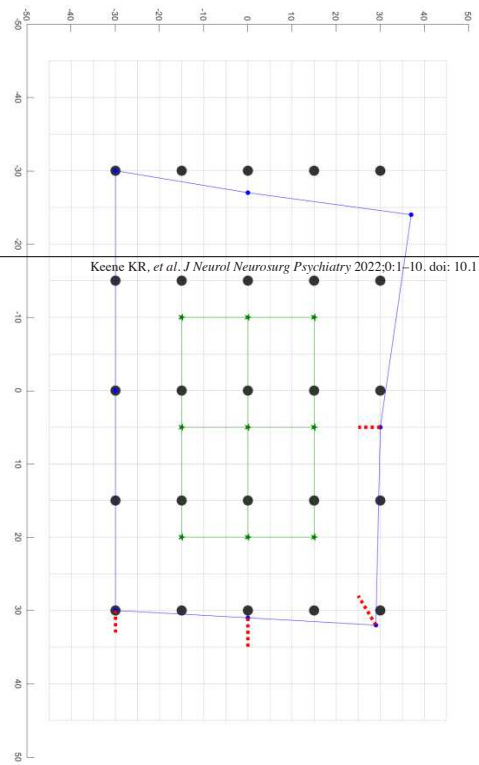
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### Muscles right



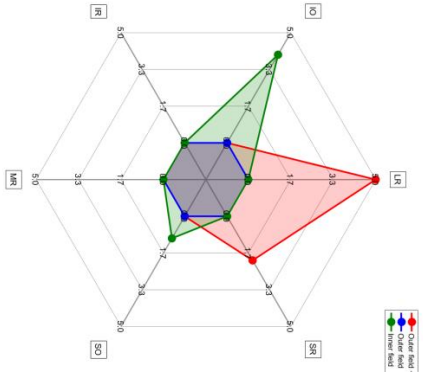
### Hess chart right



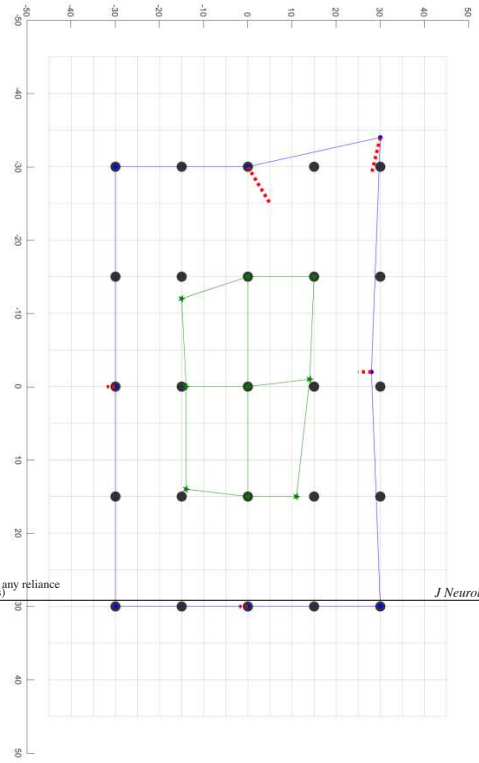
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 23

## Muscles left



## Hess chart left

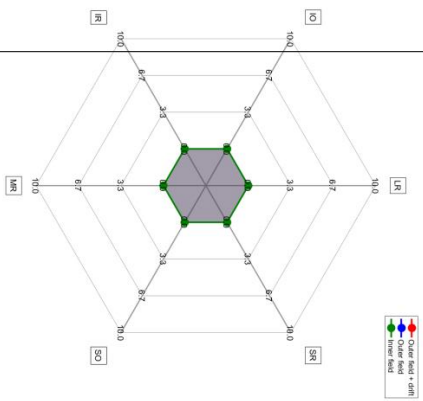


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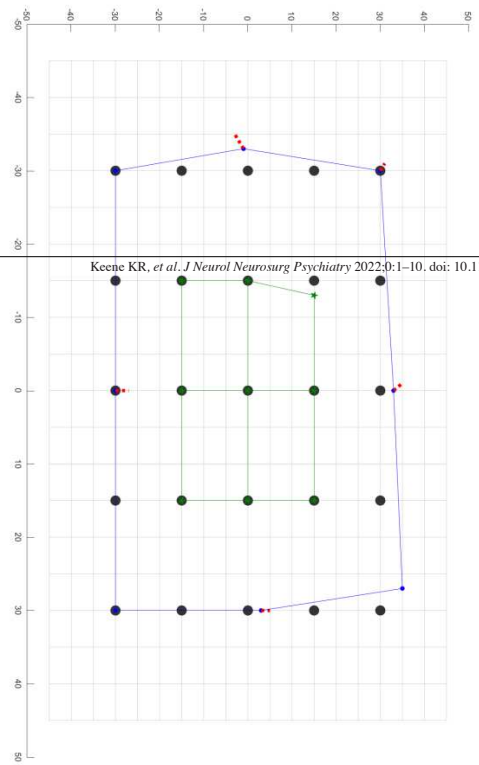
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## Muscles right



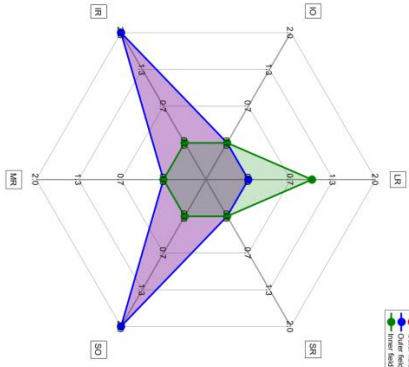
## Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

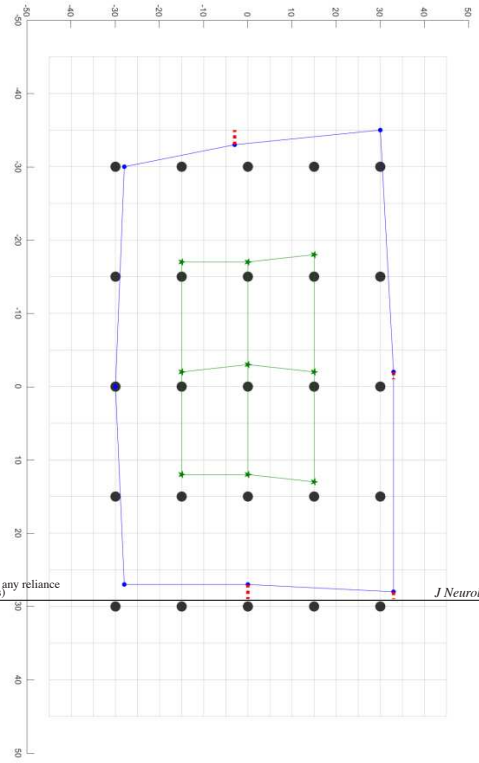
Patient number 24

### Muscles left



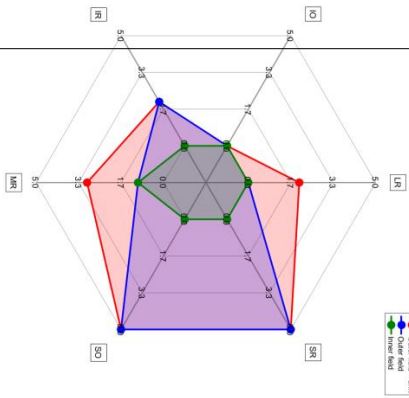
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### Hess chart left

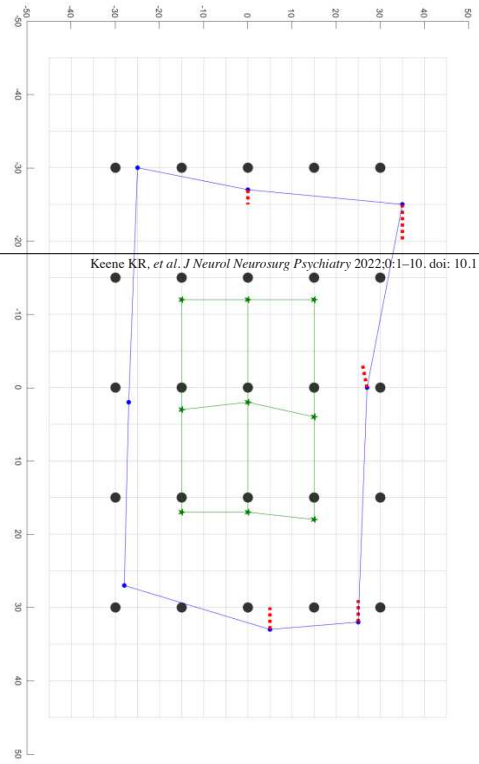


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### Muscles right



### Hess chart right

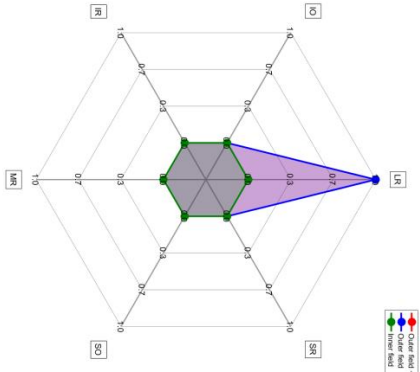


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Supplemental material

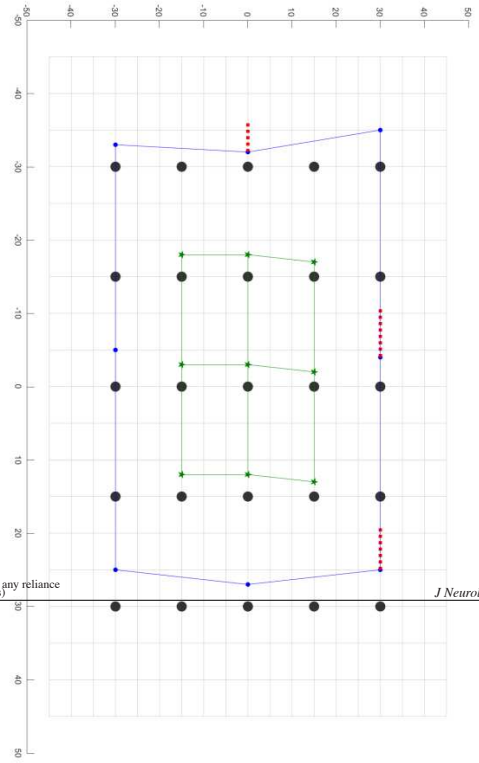
Patient number 25

### Muscles left



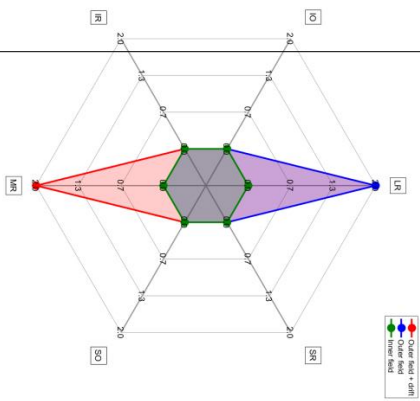
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### Hess chart left

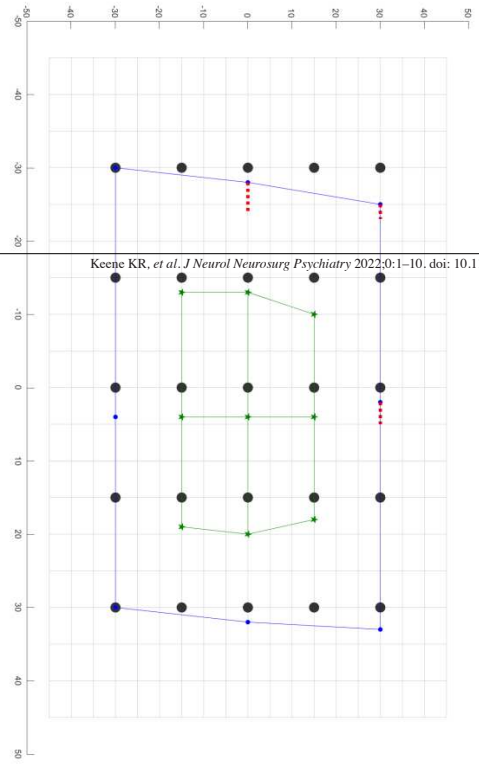


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### Muscles right



### Hess chart right

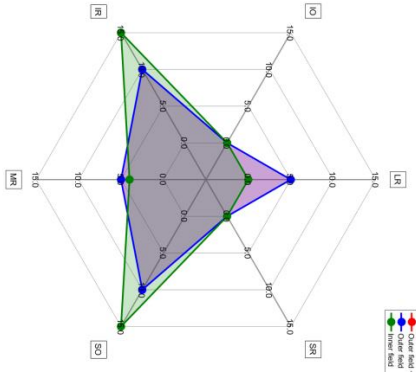


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

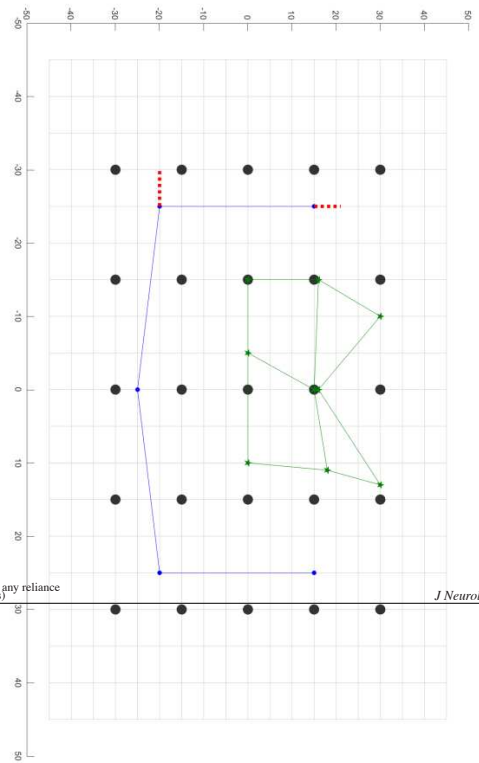
Supplemental material

Patient number 26

### Muscles left



### Hess chart left

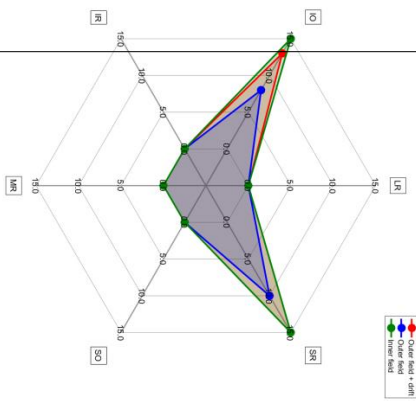


Supplemental material

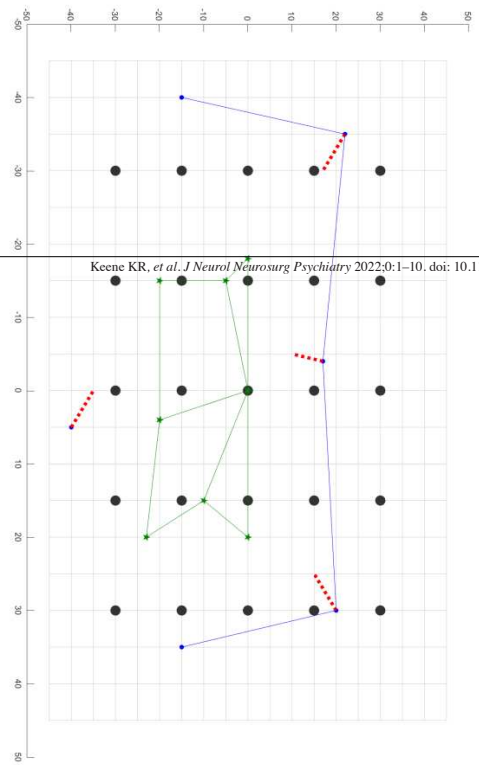
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### Muscles right



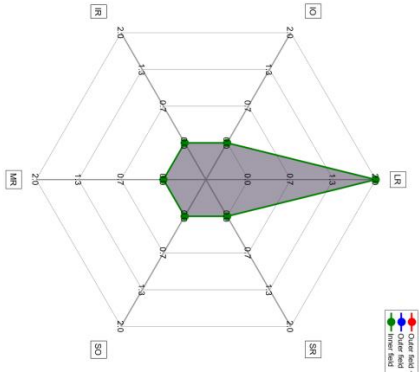
### Hess chart right



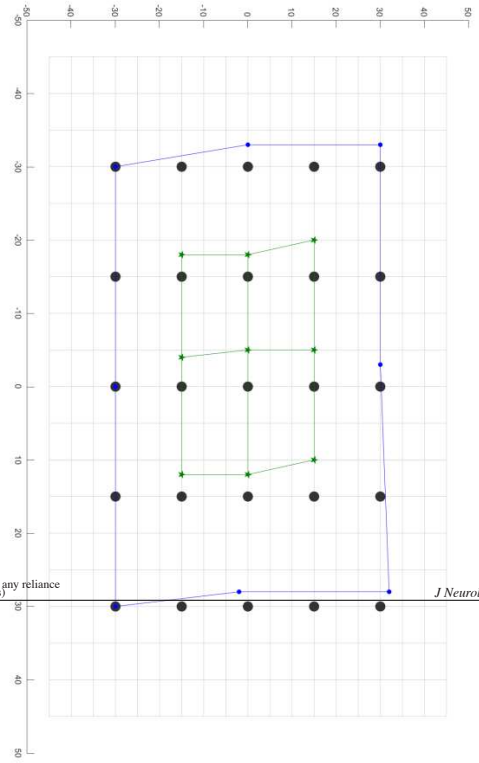
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 27

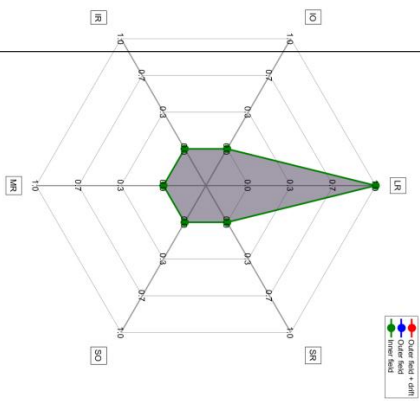
## Muscles left



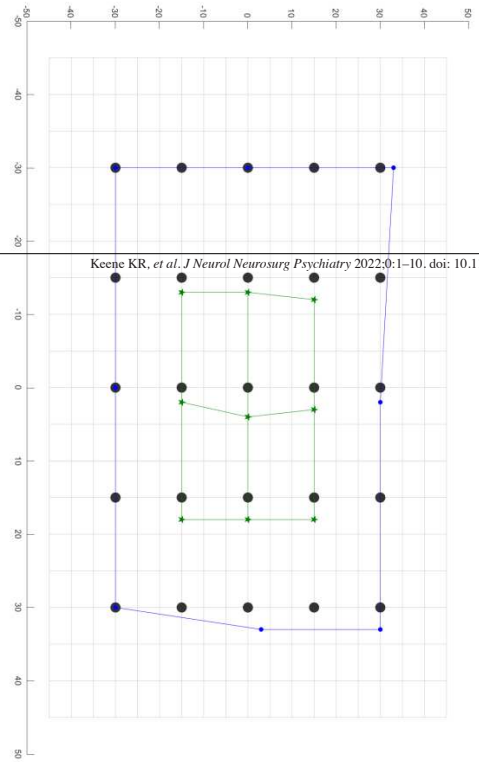
## Hess chart left



## Muscles right

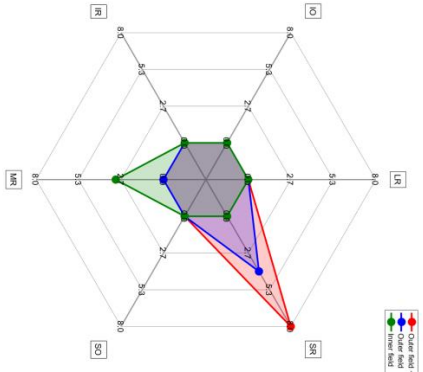


## Hess chart right



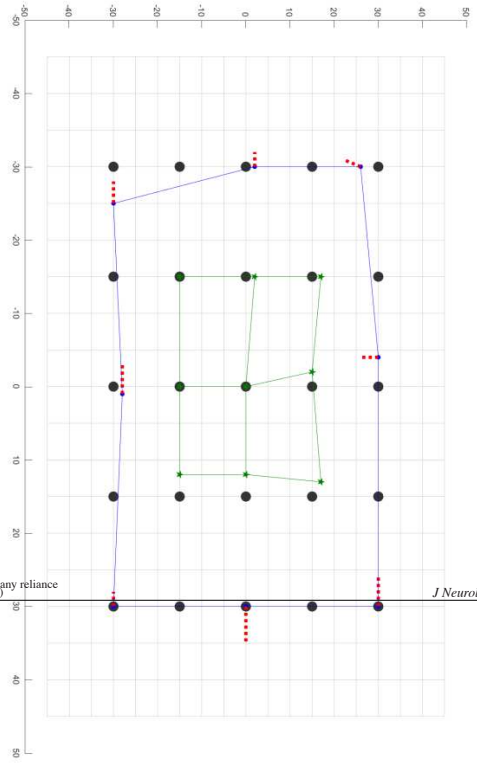


## Muscles left



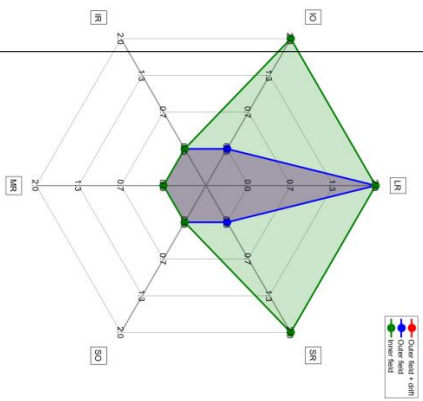
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## Hess chart left

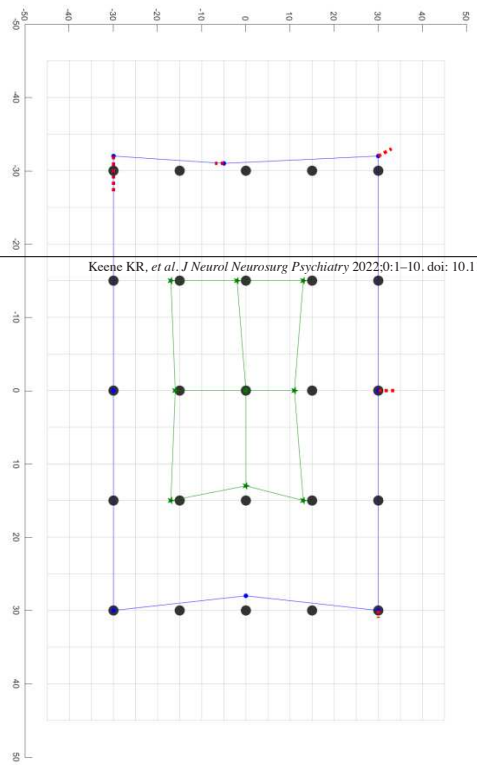


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## Muscles right



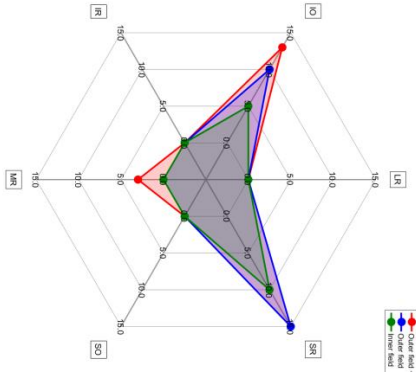
## Hess chart right



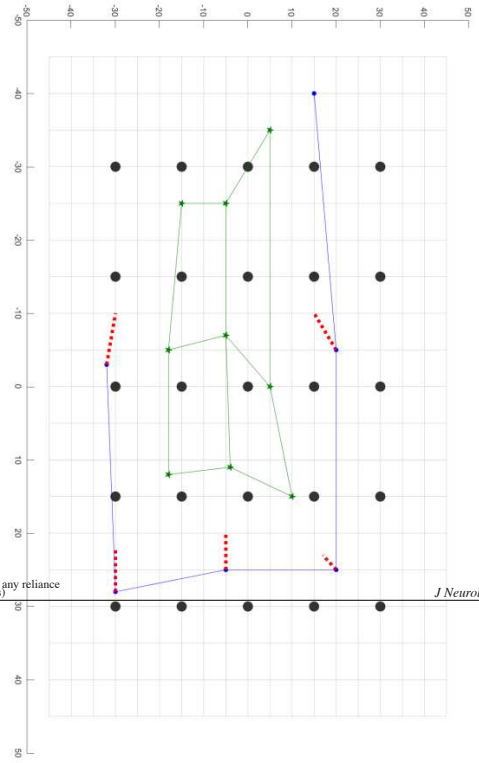
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

## Muscles left



## Hess chart left

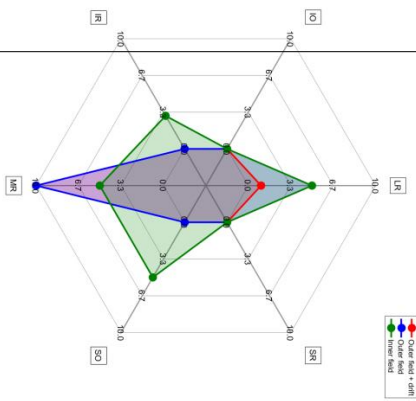


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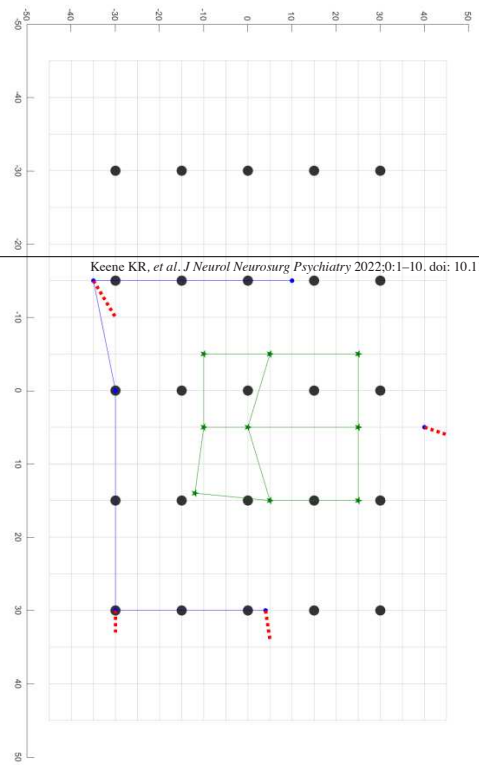
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## Muscles right



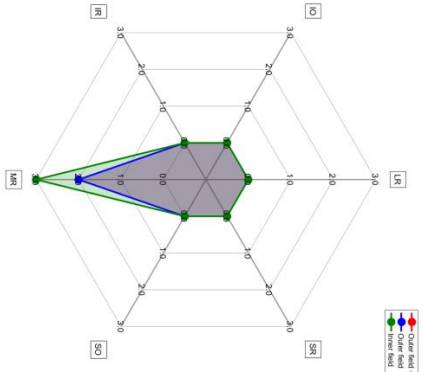
## Hess chart right



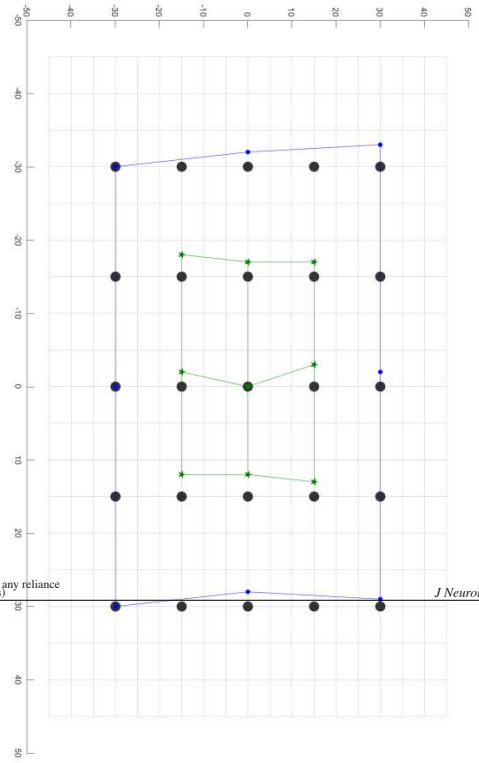
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 30

### Muscles left



### Hess chart left

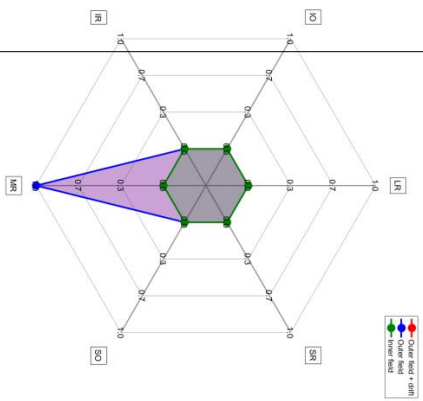


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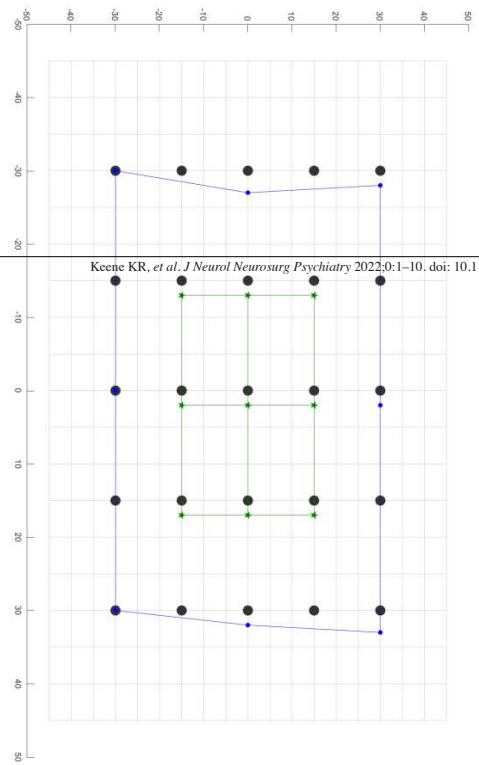
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### Muscles right



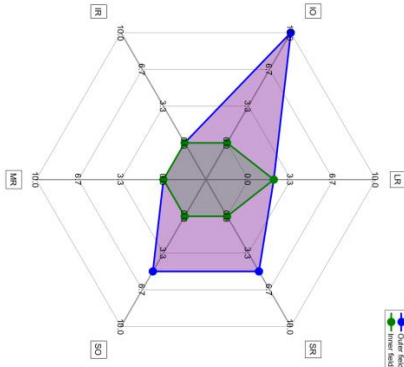
### Hess chart right



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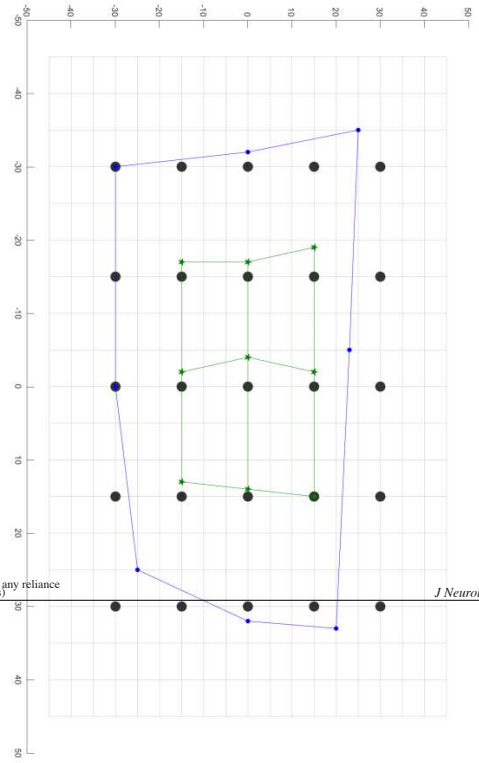
Patient number 31

### Muscles left



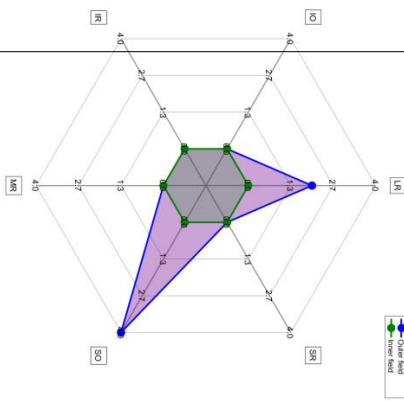
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### Hess chart left

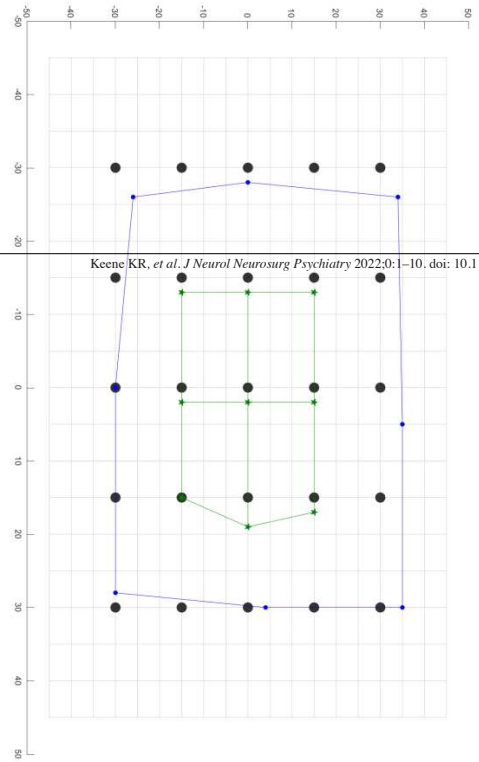


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### Muscles right



### Hess chart right

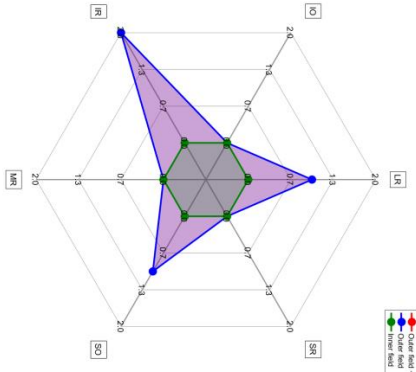


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

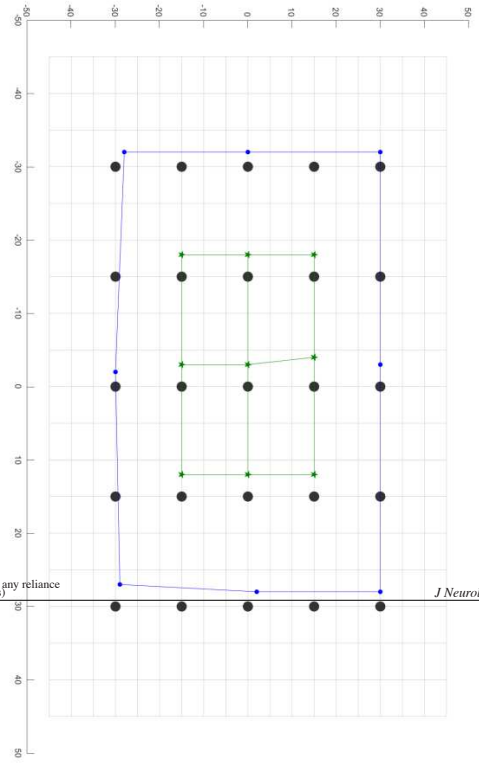
Supplemental material

Patient number 32

### Muscles left



### Hess chart left

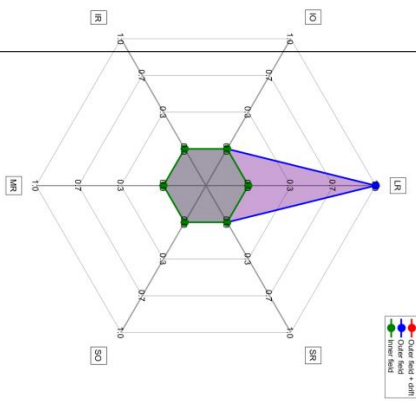


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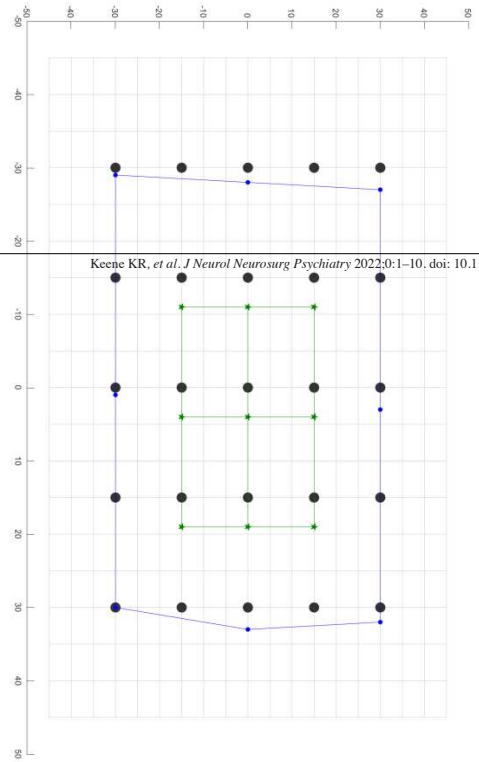
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### Muscles right



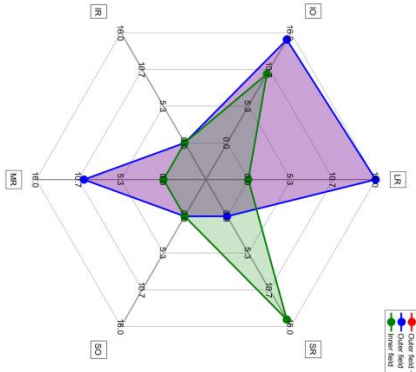
### Hess chart right



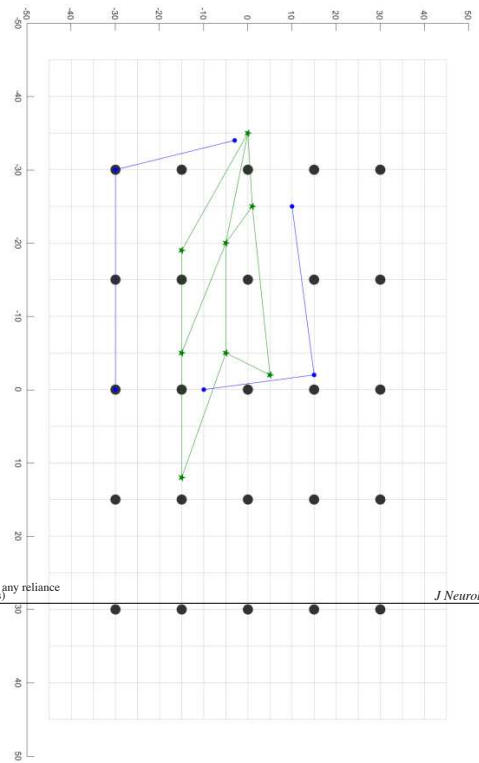
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 33

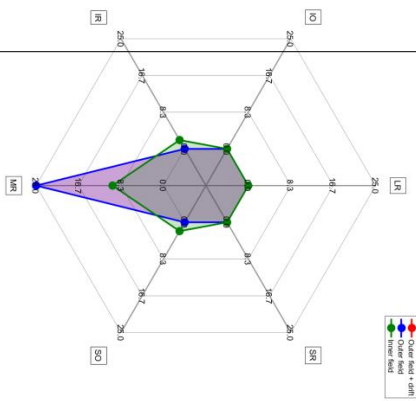
### Muscles left



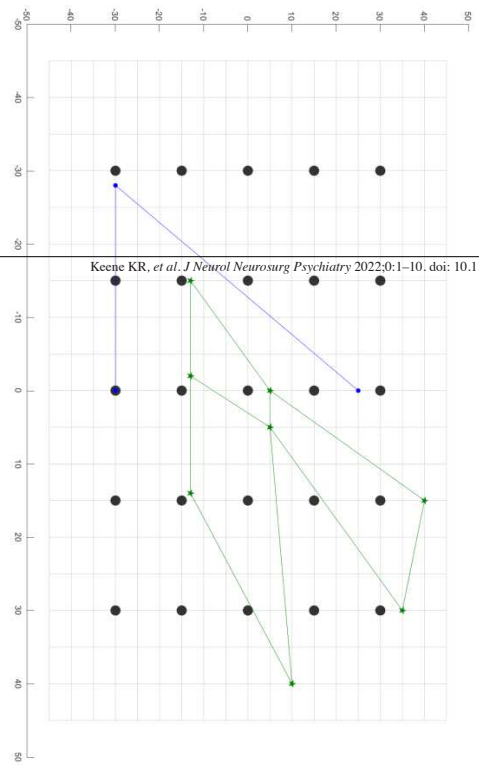
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

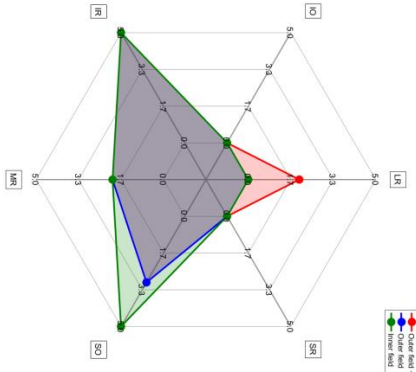
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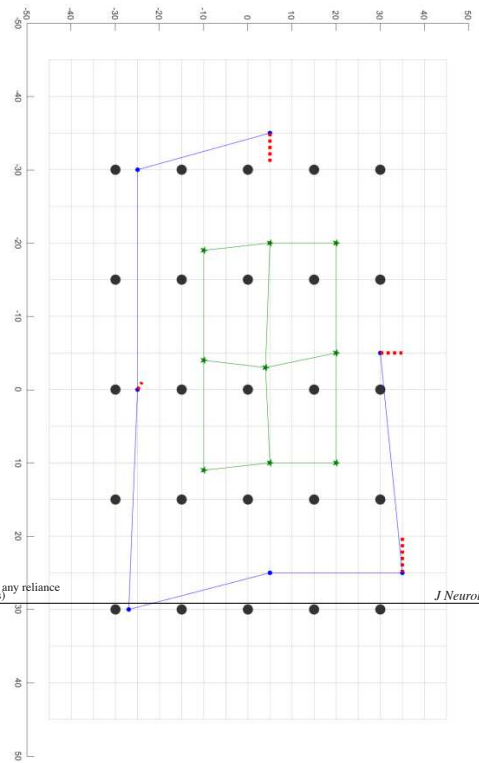
Patient number 34

## Muscles left



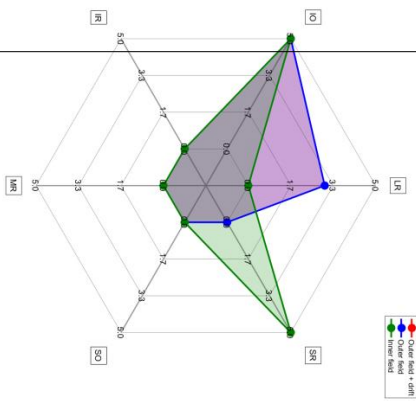
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## Hess chart left

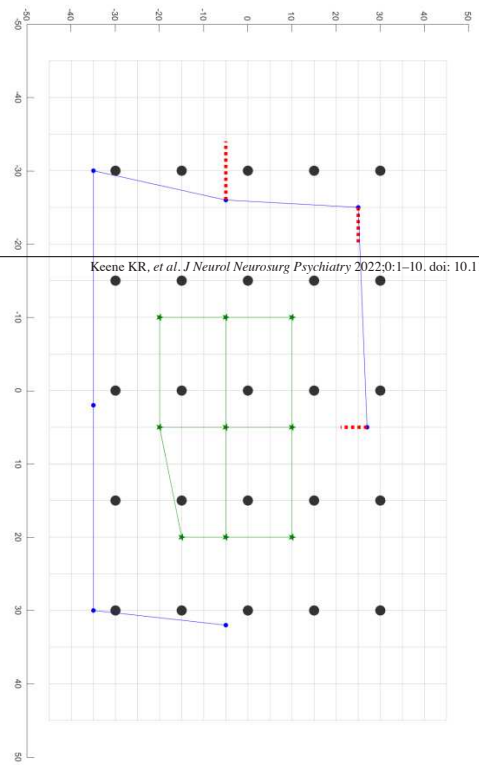


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## Muscles right



## Hess chart right

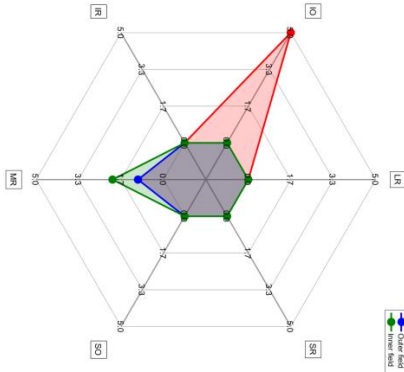


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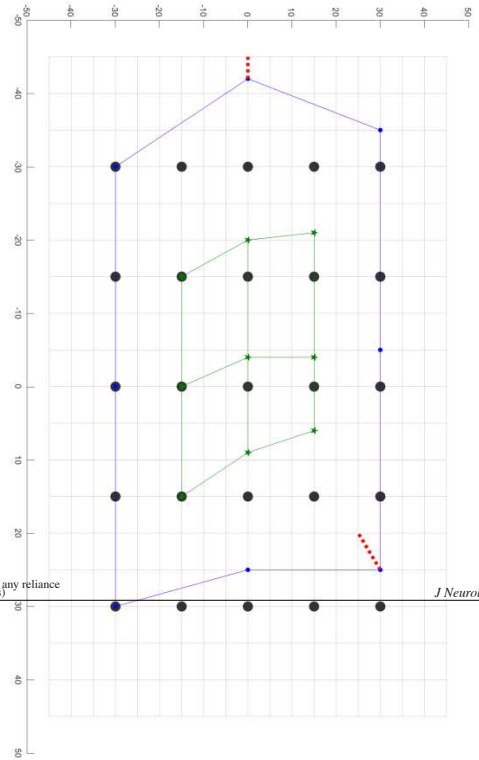
Supplemental material

Patient number 35

### Muscles left



### Hess chart left

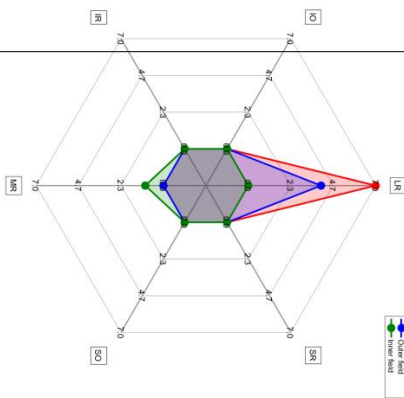


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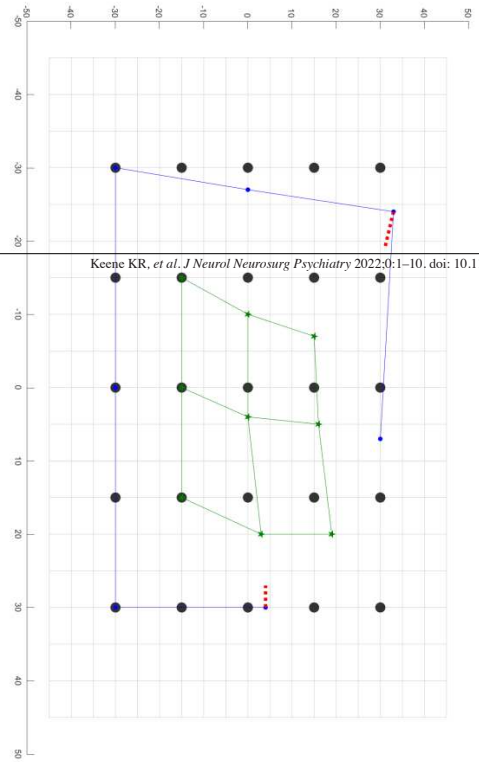
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### Muscles right



### Hess chart right

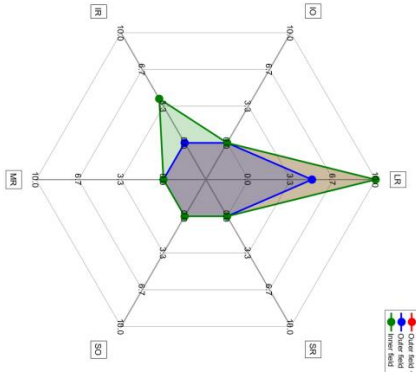


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

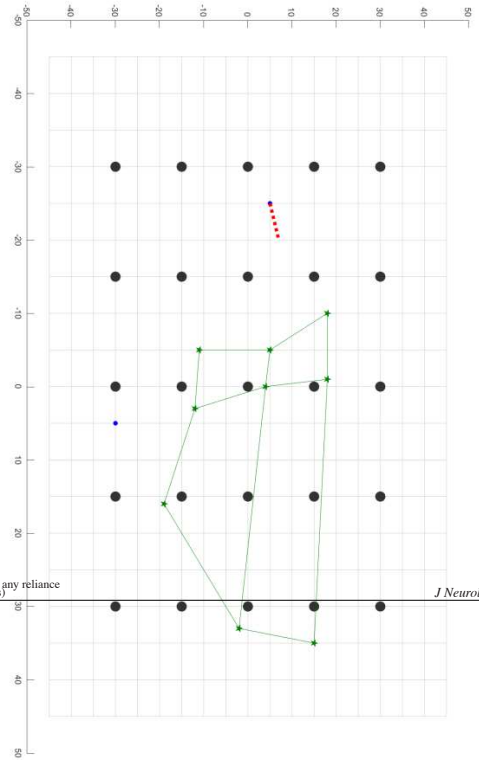
Patient number 36



### Muscles left



### Hess chart left

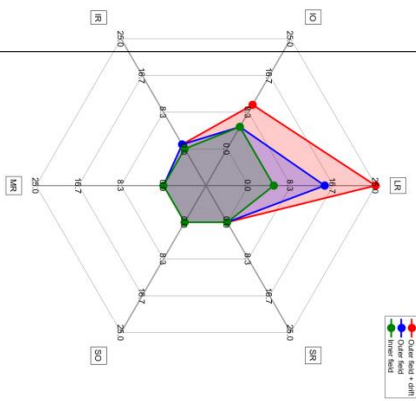


Supplemental material

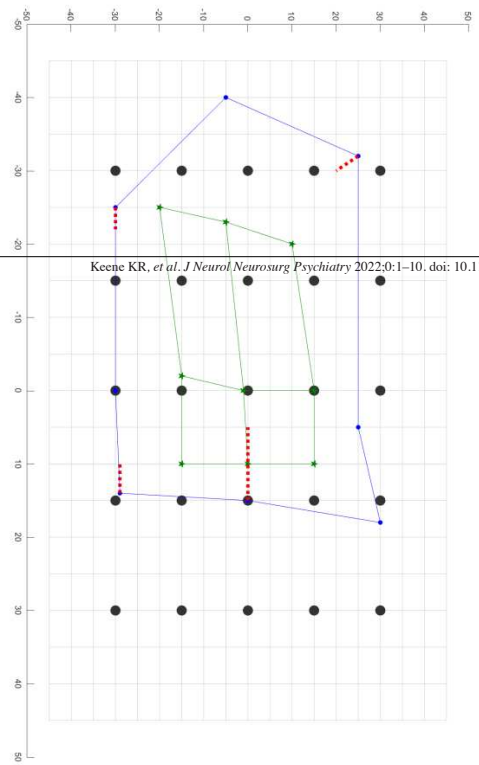
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### Muscles right



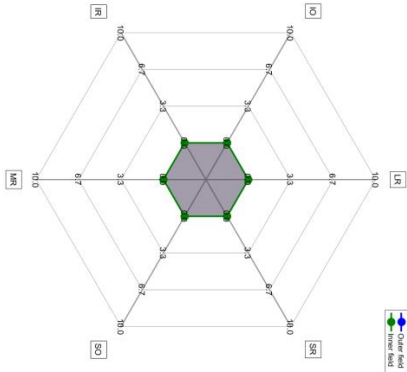
### Hess chart right



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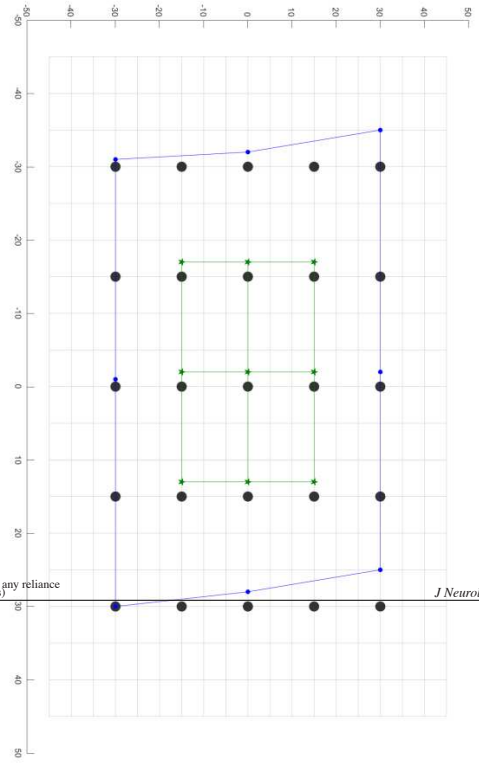
Patient number 37

## Muscles left



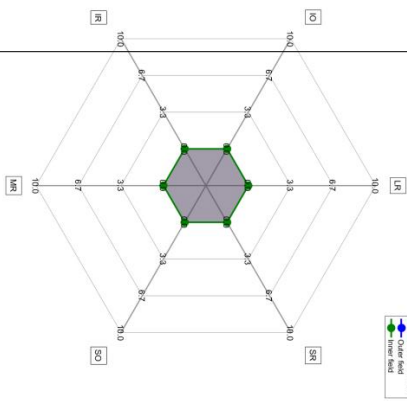
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## Hess chart left

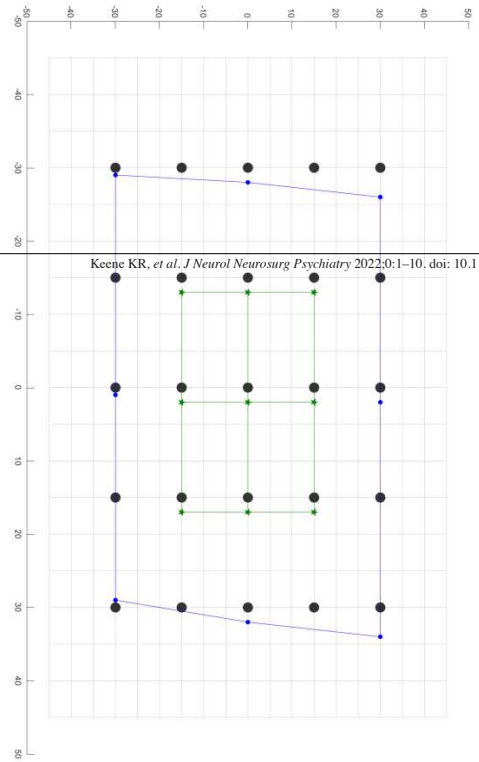


*J Neurol Neurosurg Psychiatry*

## Muscles right



## Hess chart right

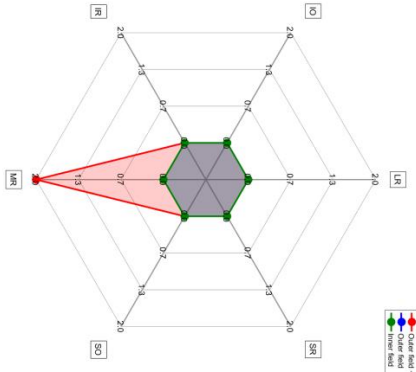


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Supplemental material

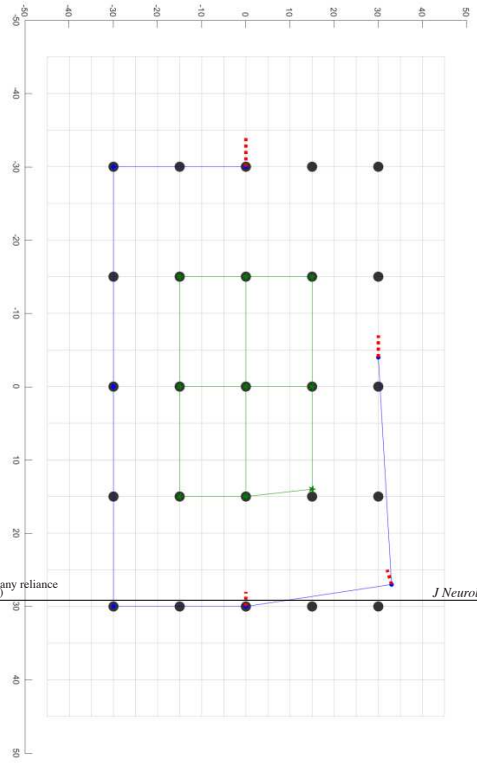
Patient number 38

### Muscles left



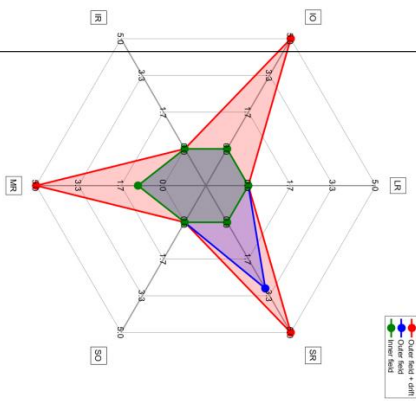
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### Hess chart left

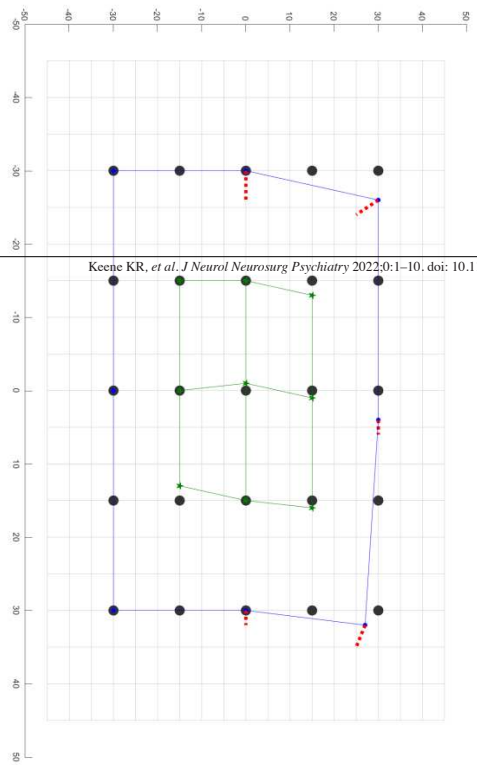


*J Neurol Neurosurg Psychiatry*

### Muscles right



### Hess chart right

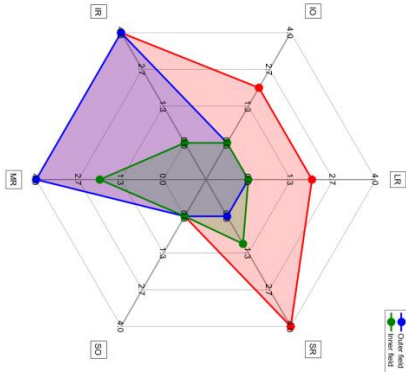


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

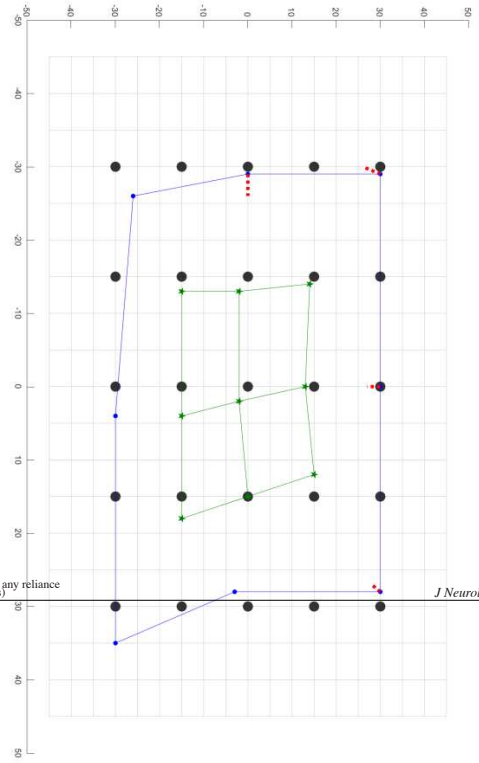
Supplemental material

Patient number 39

## Muscles left



## Hess chart left

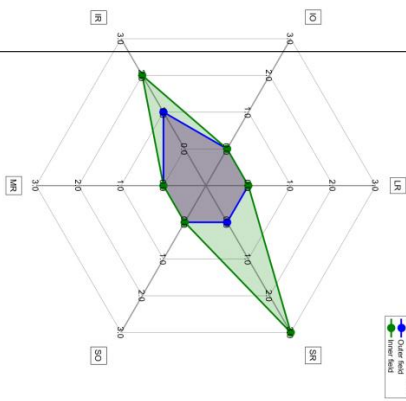


Supplemental material

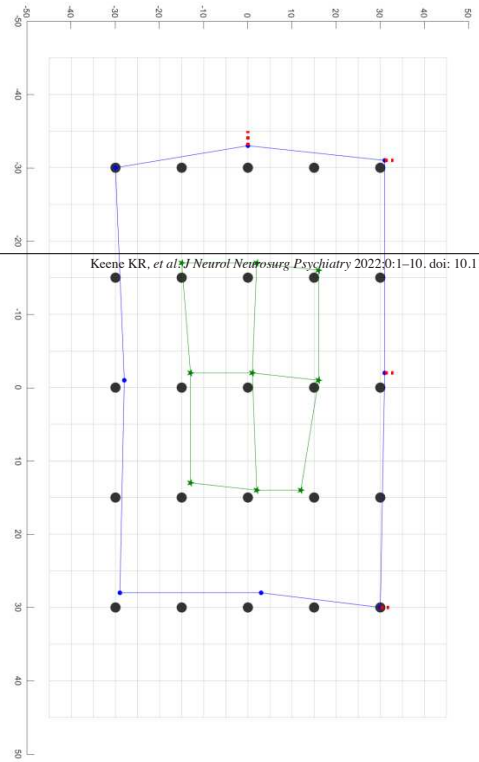
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## Muscles right



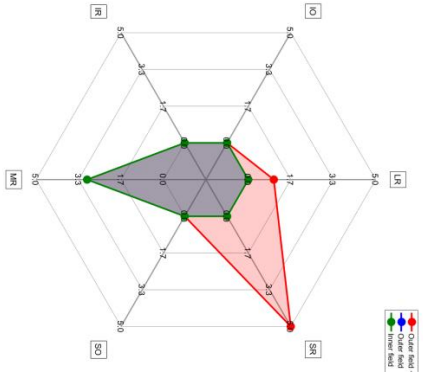
## Hess chart right



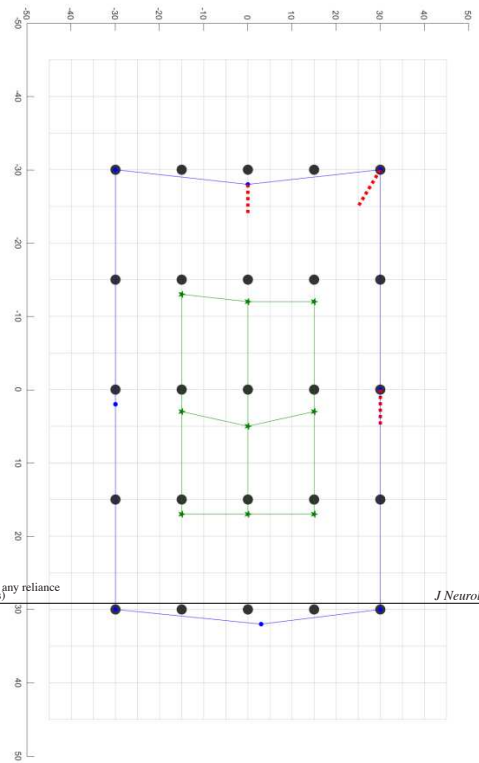
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 40

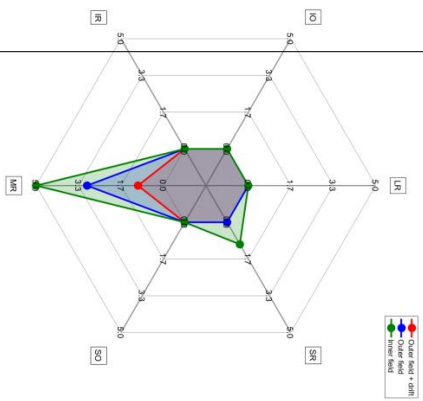
## Muscles left



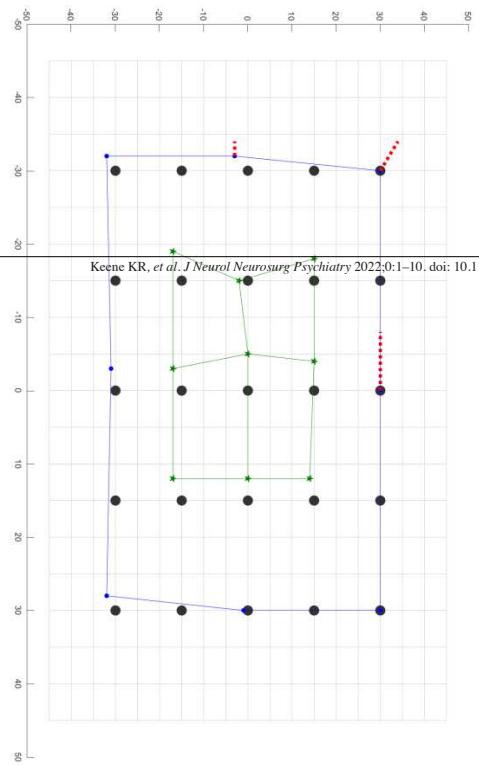
## Hess chart left



## Muscles right



## Hess chart right



Supplemental material

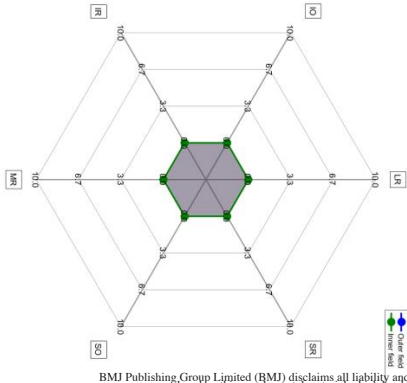
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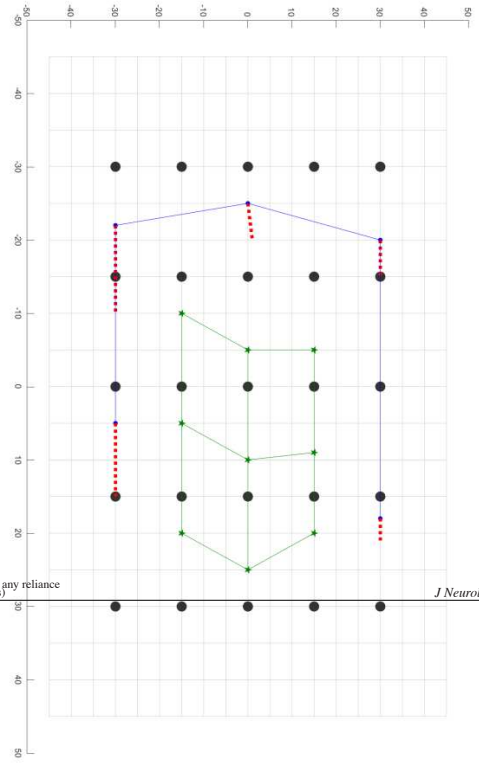
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 41

## Muscles left



## Hess chart left

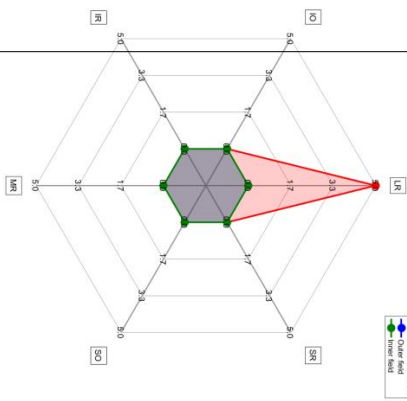


Supplemental material

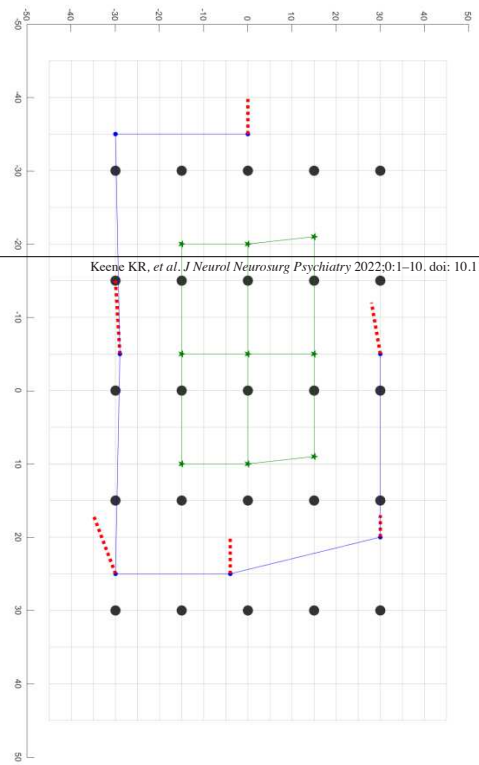
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## Muscles right



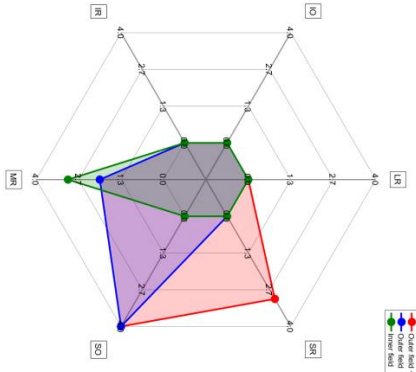
## Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

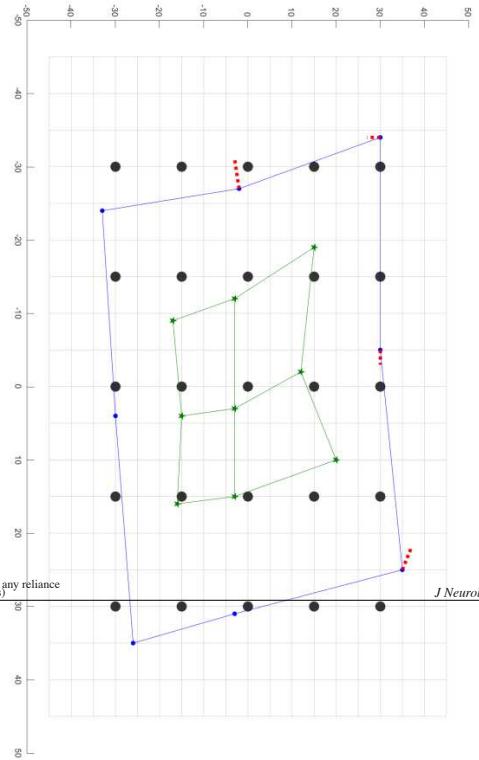
Patient number 42

### Muscles left



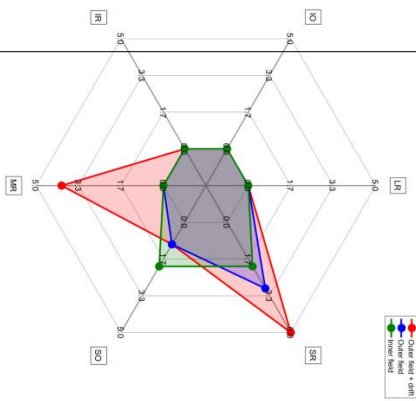
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### Hess chart left

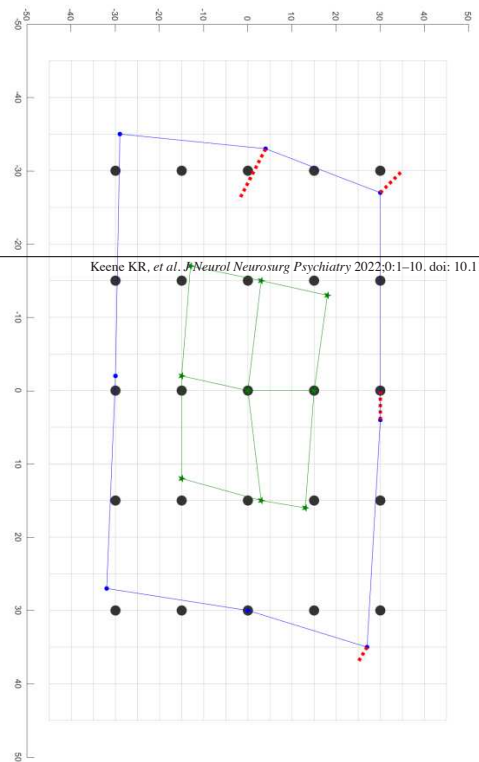


J Neurol Neurosurg Psychiatry

### Muscles right



### Hess chart right

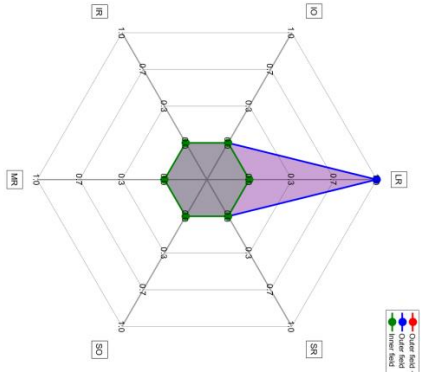


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

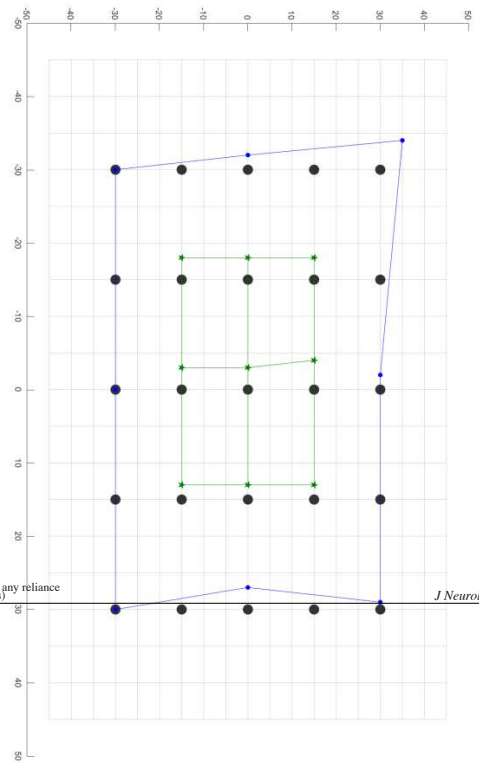
Supplemental material

Patient number 43

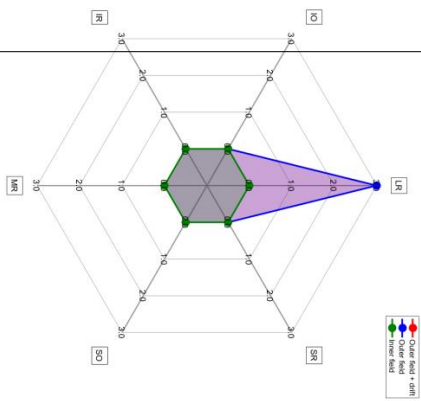
### Muscles left



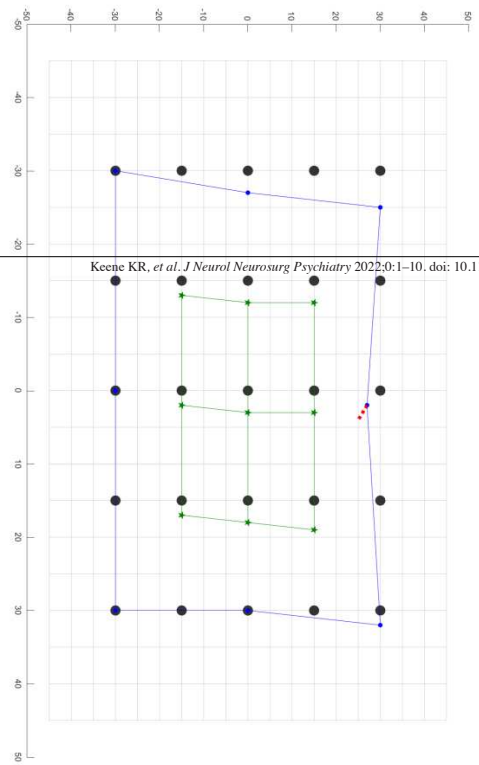
### Hess chart left



### Muscles right

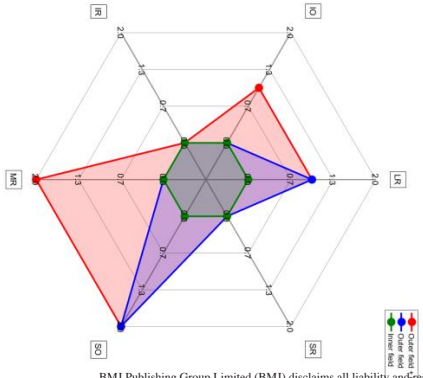


### Hess chart right



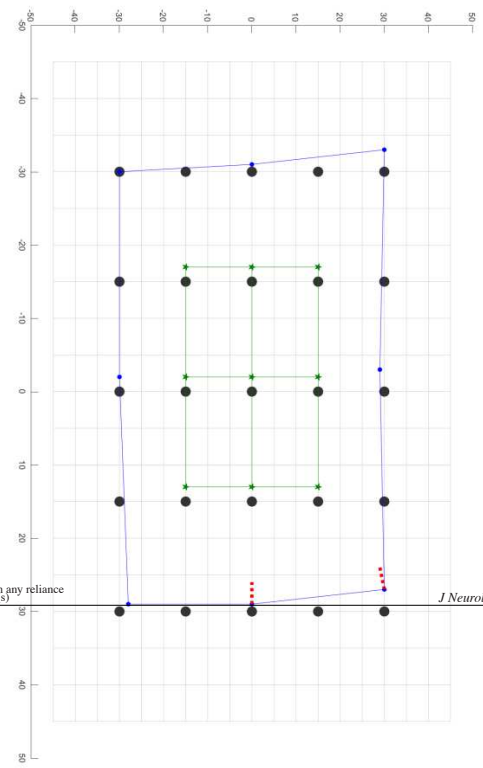


### Muscles left



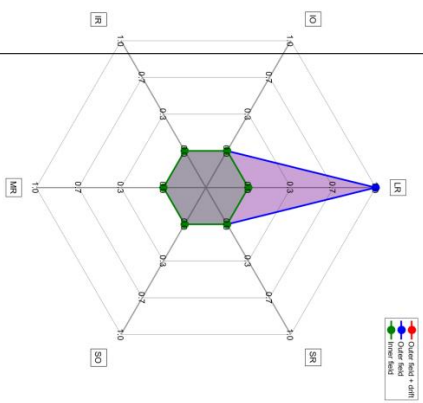
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### Hess chart left

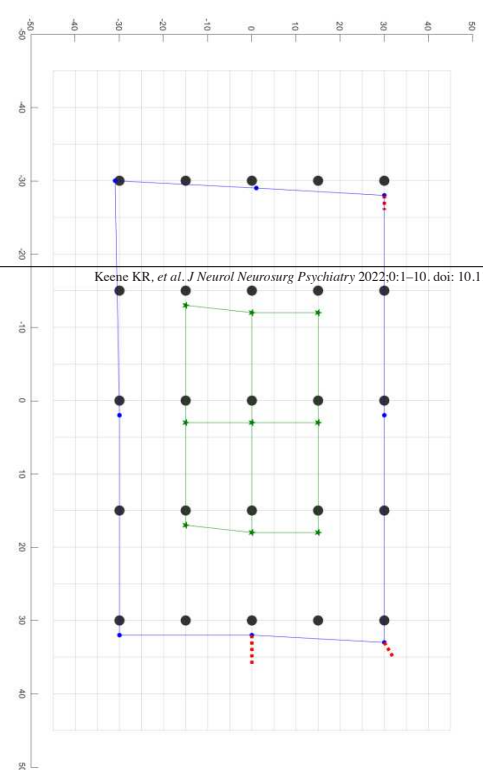


J Neurol Neurosurg Psychiatry

### Muscles right



### Hess chart right

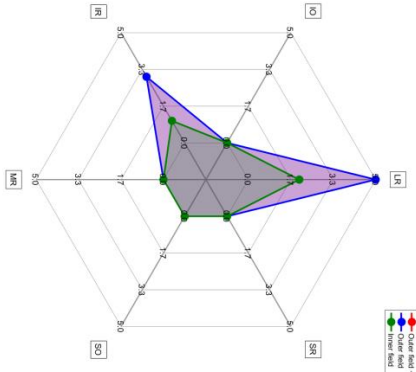


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

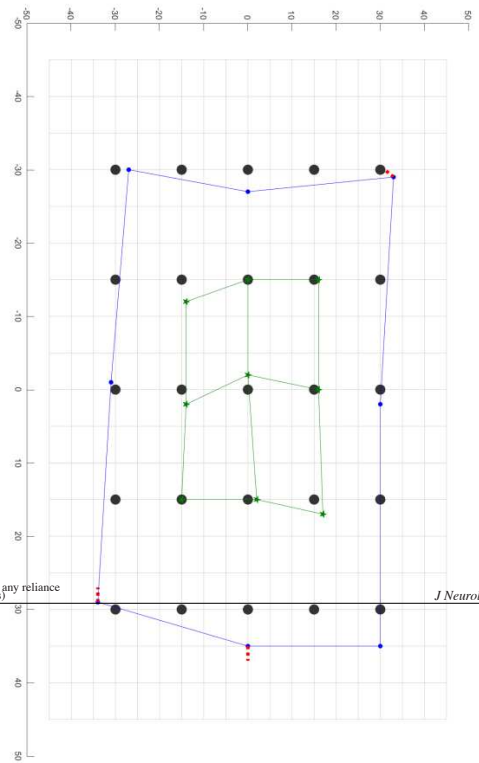
Supplemental material

Patient number 45

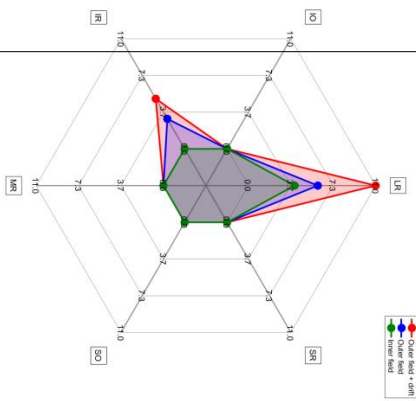
### Muscles left



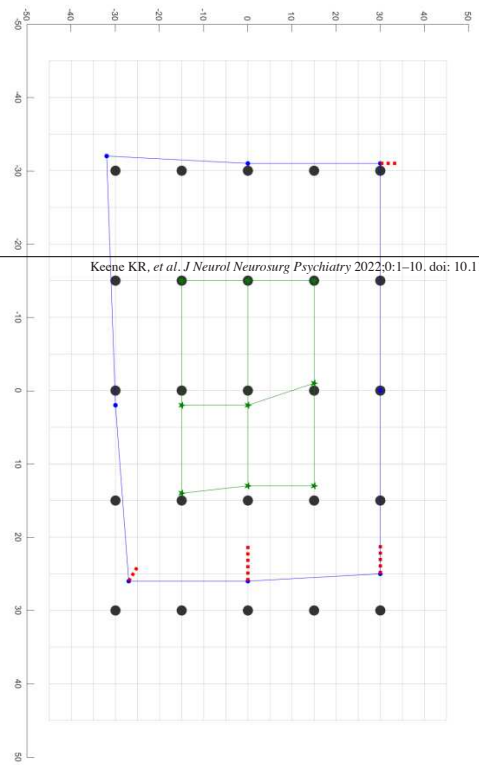
### Hess chart left



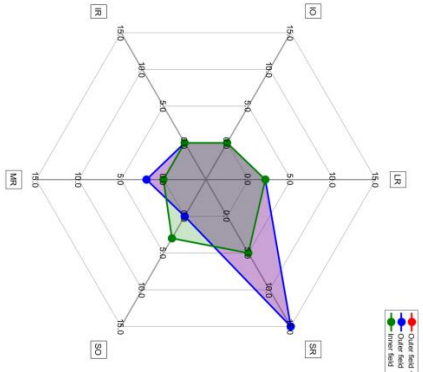
### Muscles right



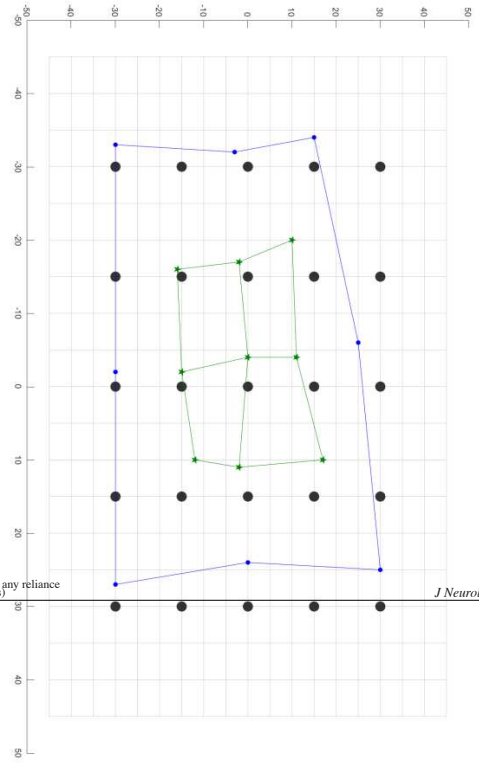
### Hess chart right



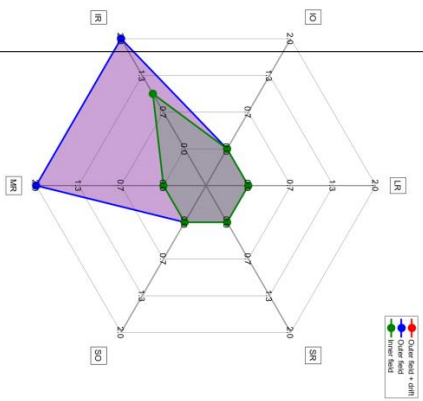
### Muscles left



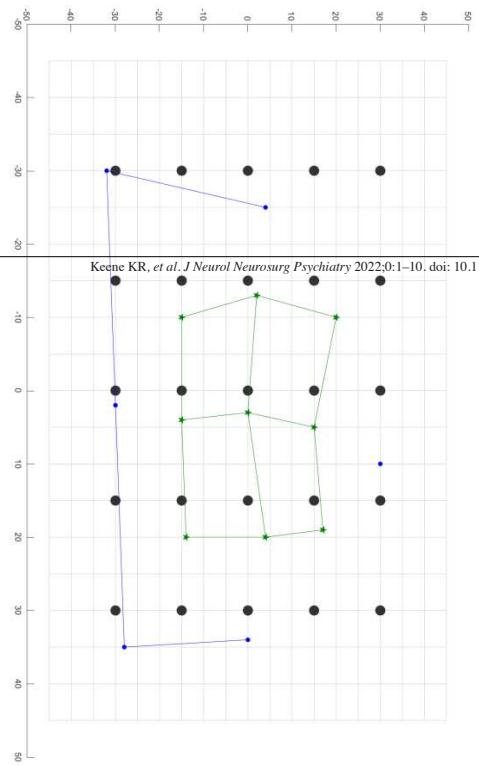
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

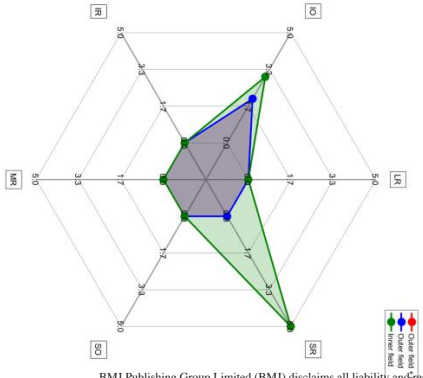
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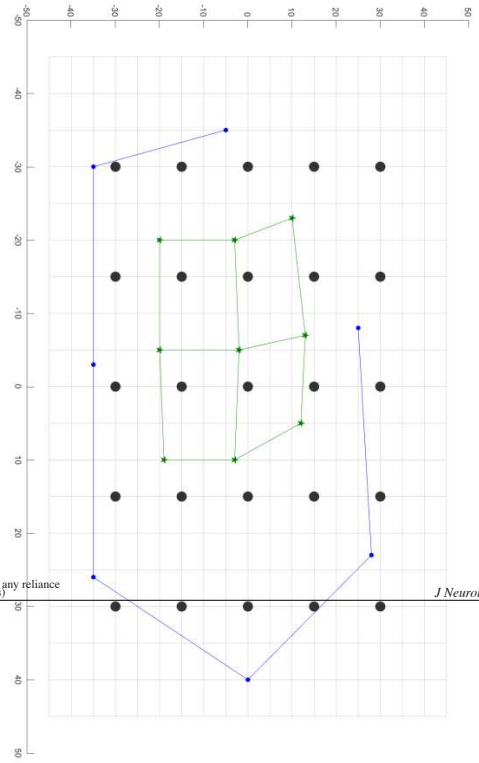
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 47

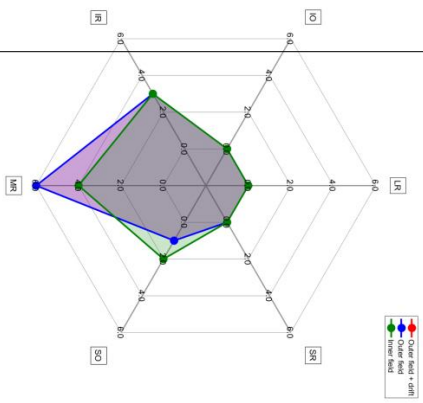
## Muscles left



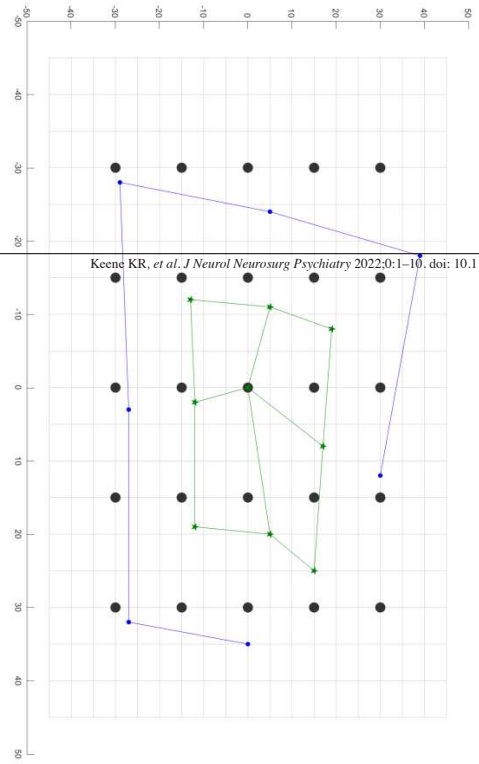
## Hess chart left



## Muscles right



## Hess chart right



Supplemental material

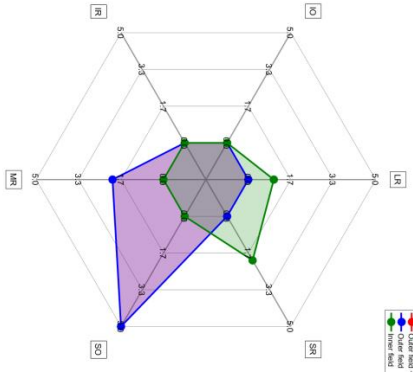
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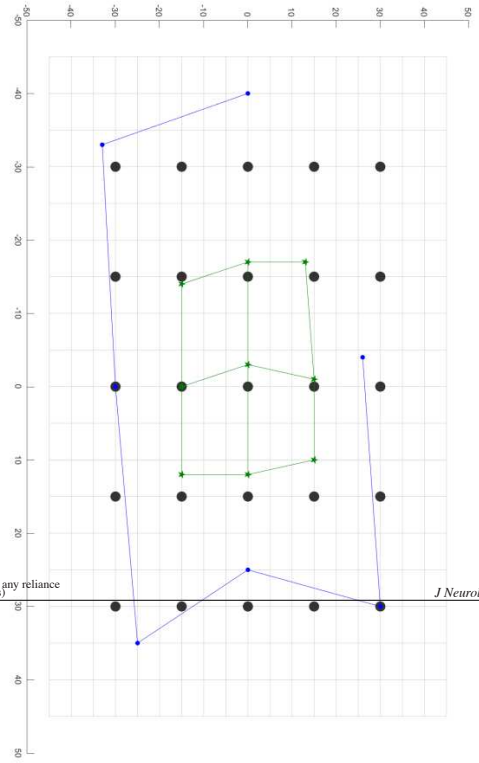
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

**Patient number 48**

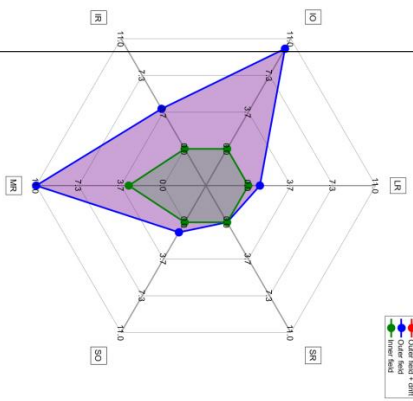
### Muscles left



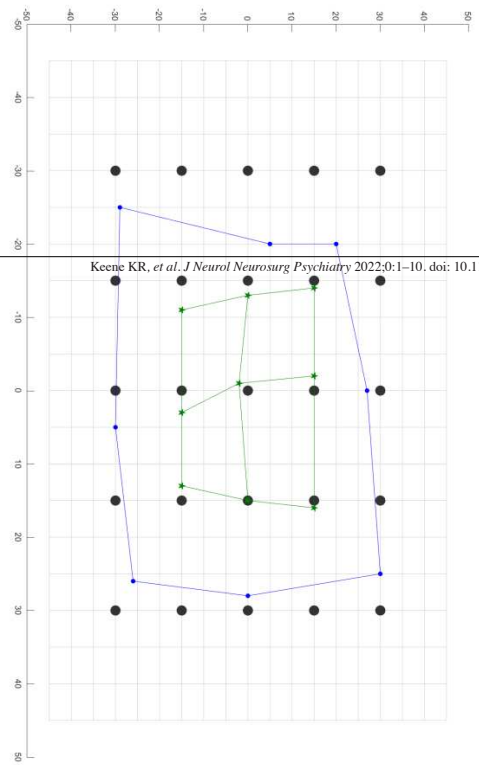
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

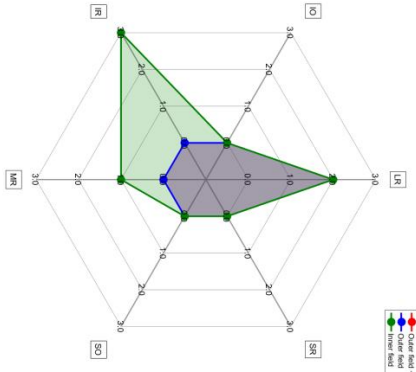
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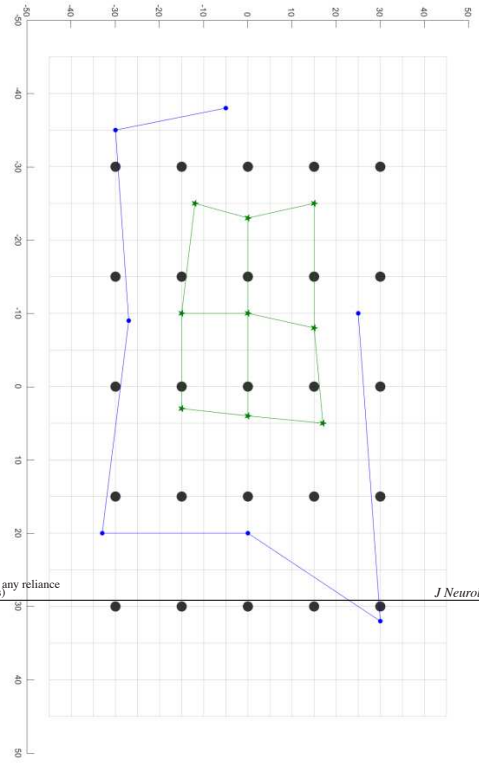
Patient number 49

### Muscles left



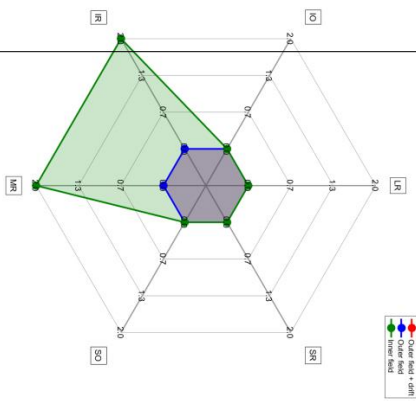
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### Hess chart left

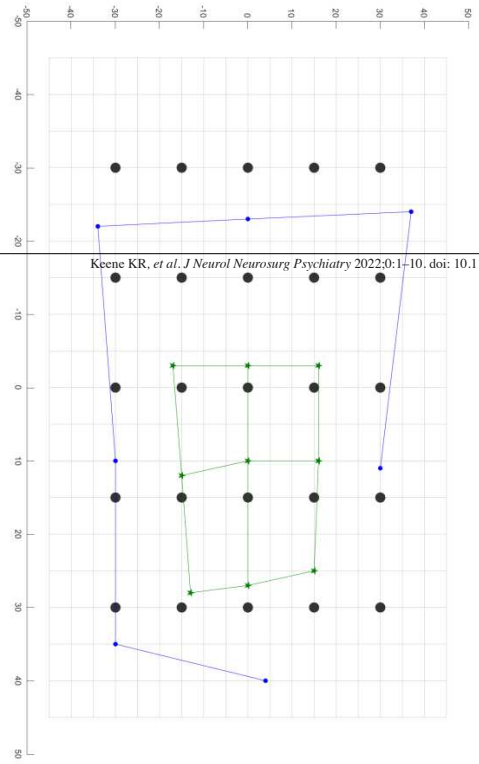


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### Muscles right



### Hess chart right

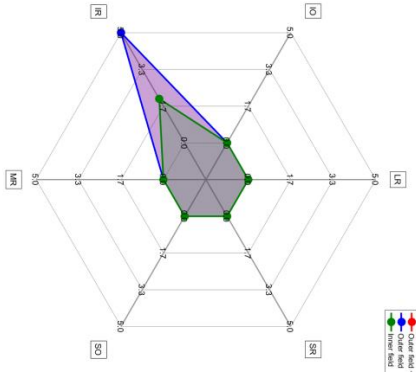


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

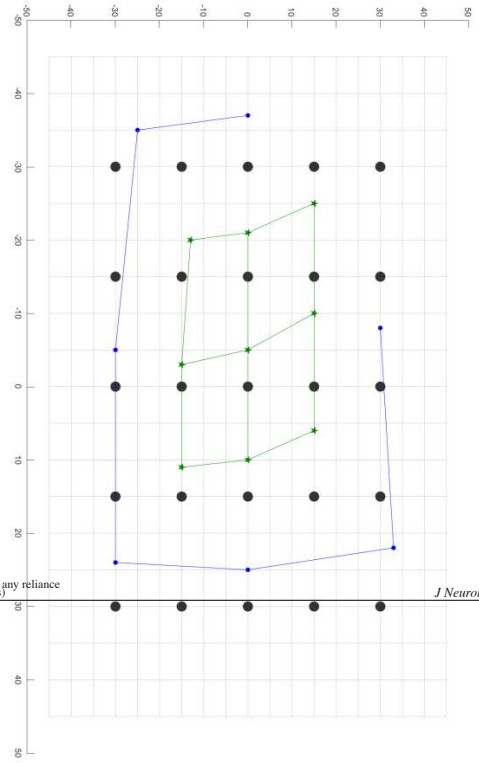
Supplemental material

Patient number 50

### Muscles left



### Hess chart left

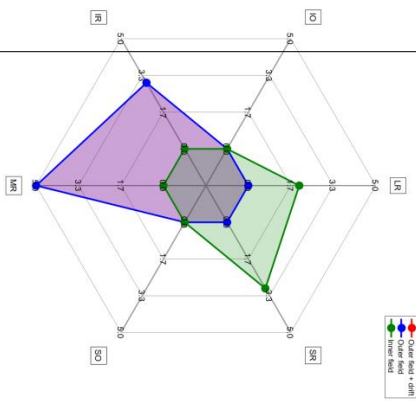


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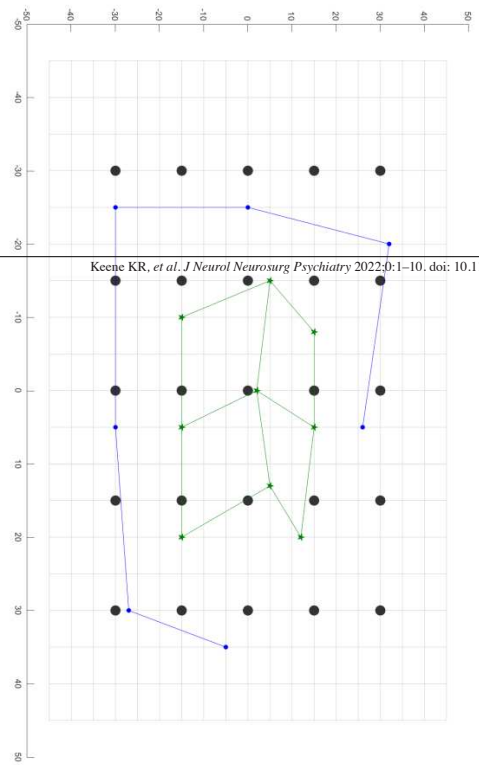
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### Muscles right



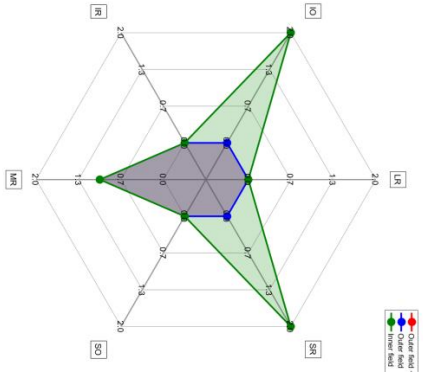
### Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

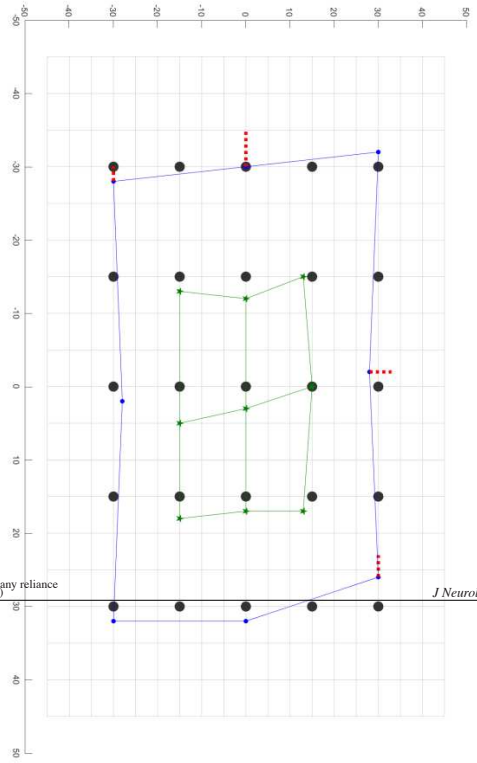
Patient number 51

### Muscles left



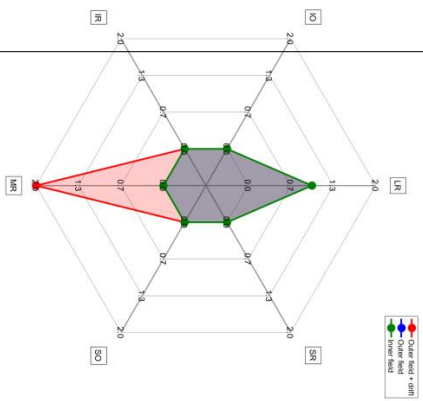
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### Hess chart left

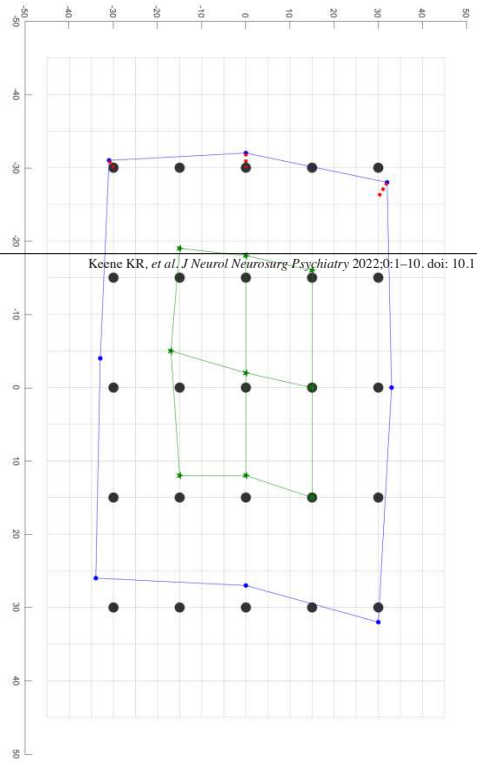


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### Muscles right



### Hess chart right



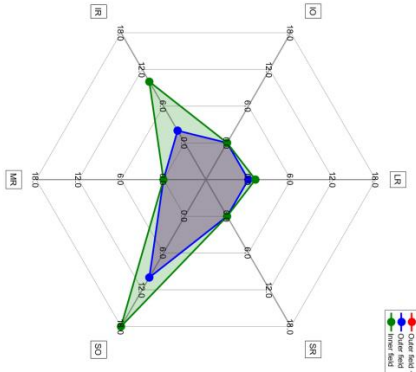
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

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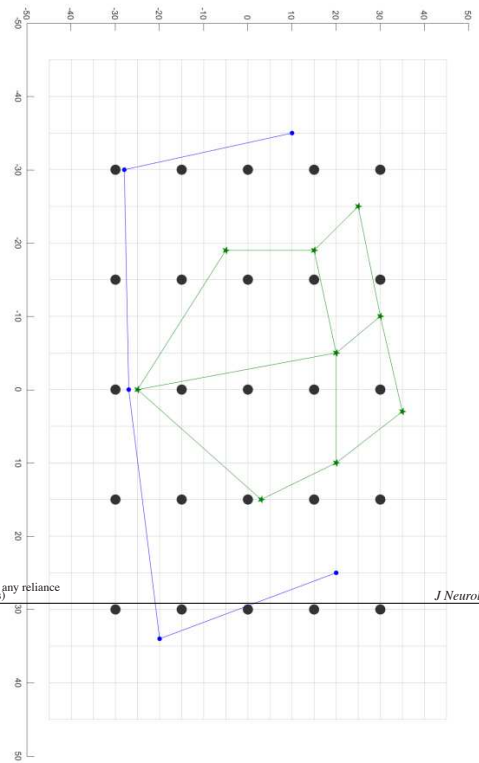
Patient number 52



### Muscles left



### Hess chart left

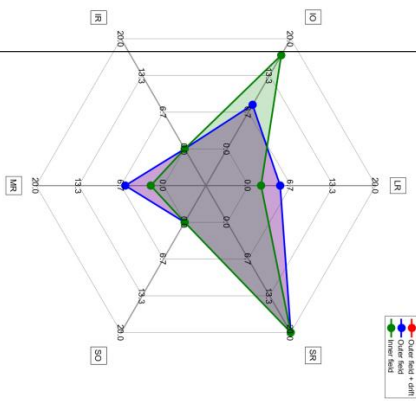


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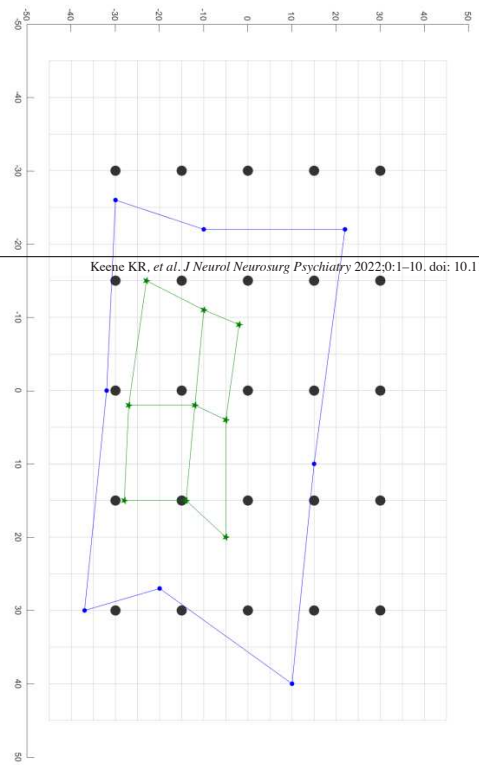
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### Muscles right



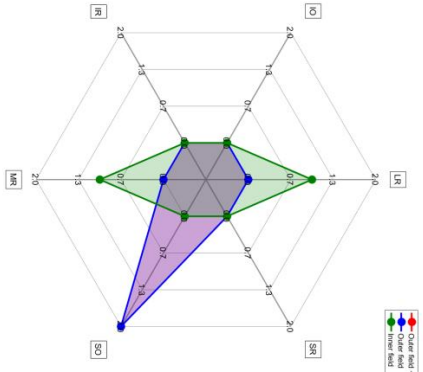
### Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

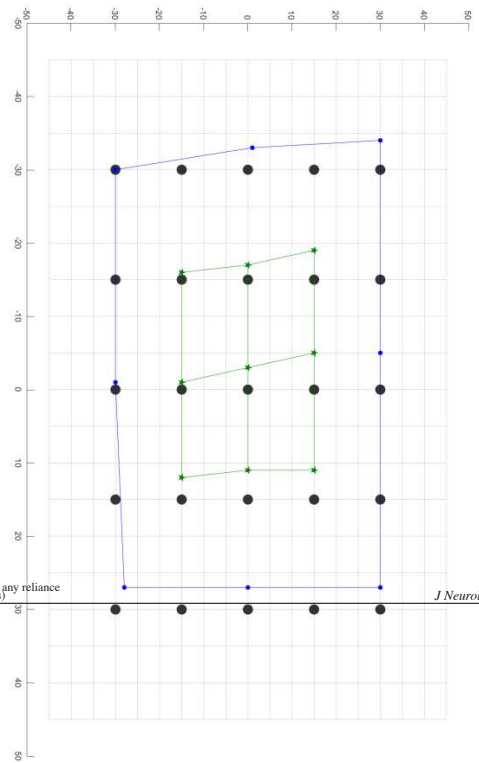
Patient number 53

### Muscles left



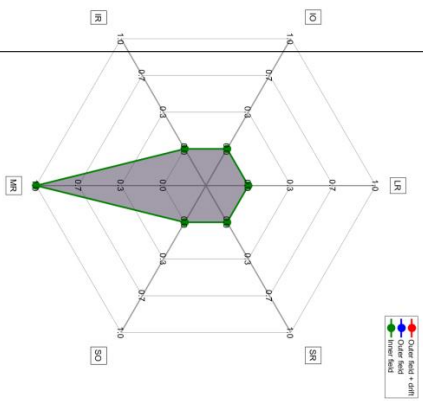
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### Hess chart left

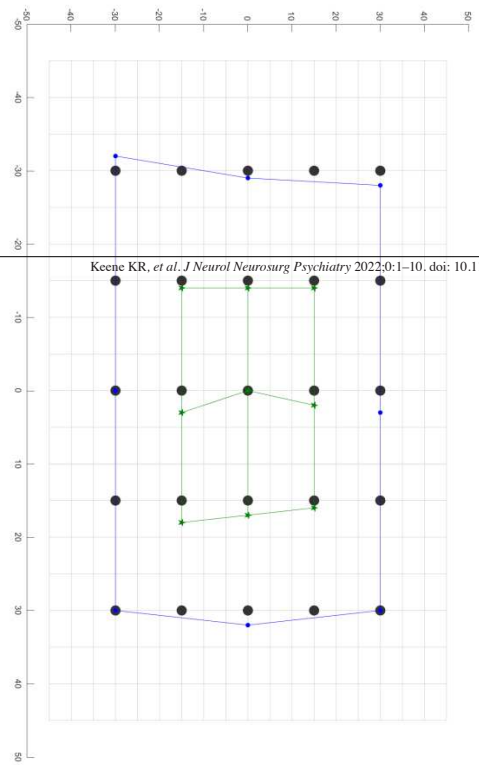


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### Muscles right



### Hess chart right

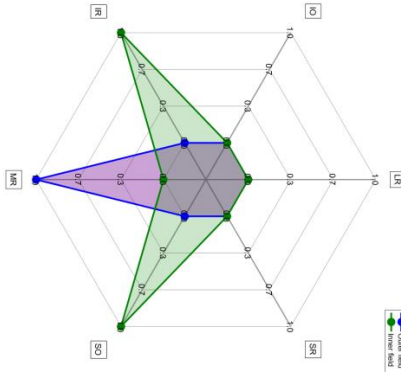


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

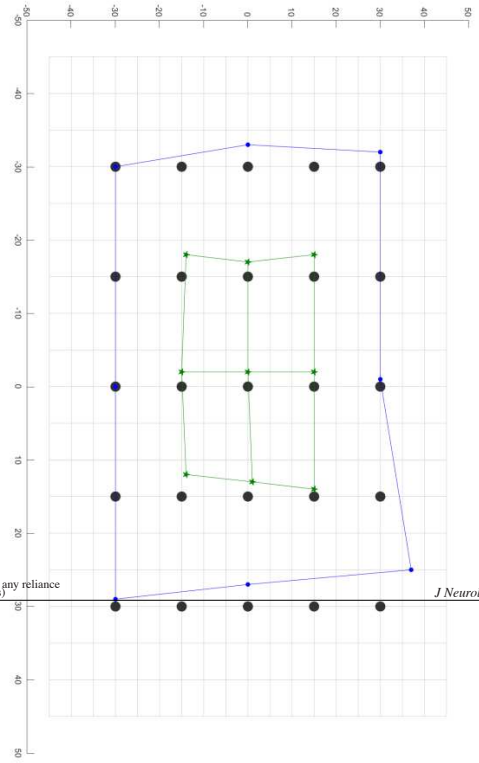
Patient number 54

### Muscles left



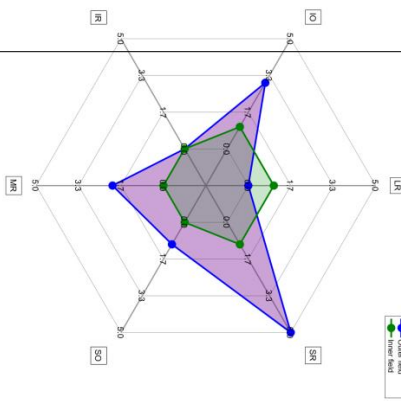
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### Hess chart left

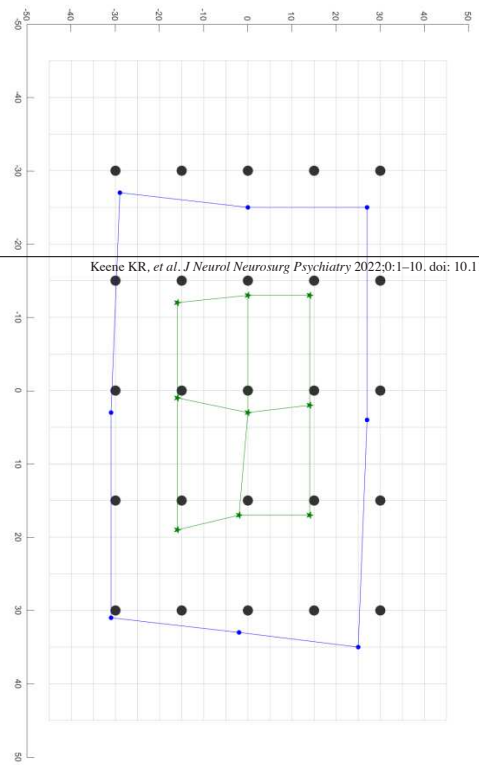


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### Muscles right



### Hess chart right

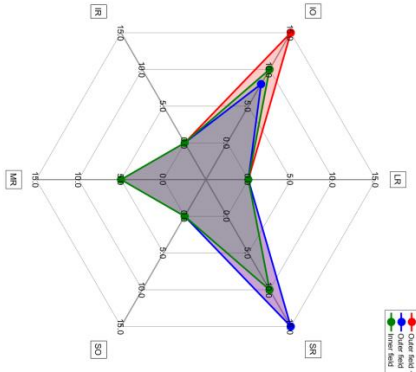


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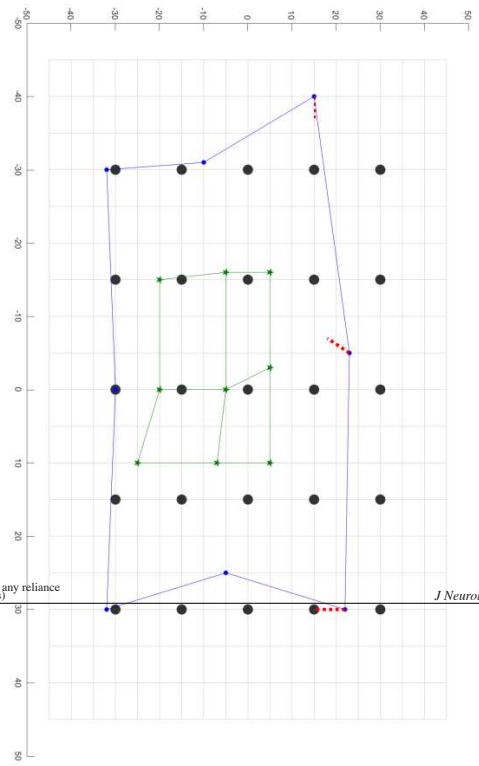
Supplemental material

Patient number 55

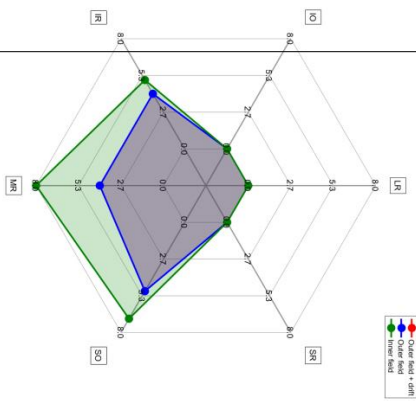
### Muscles left



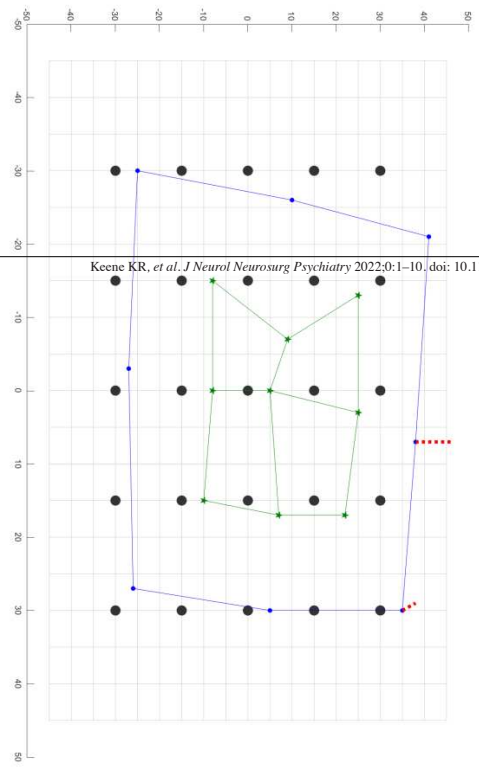
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

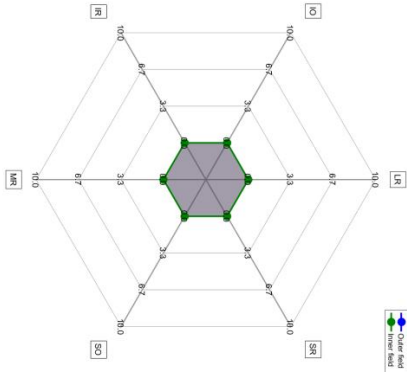
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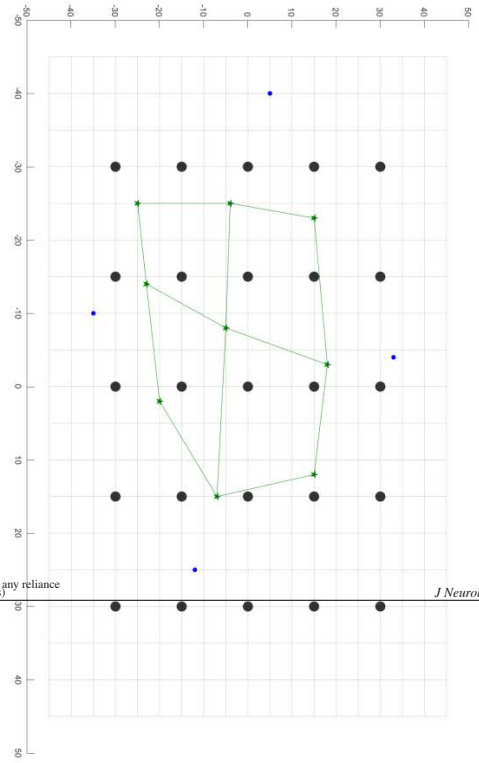
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 56

## Muscles left



## Hess chart left

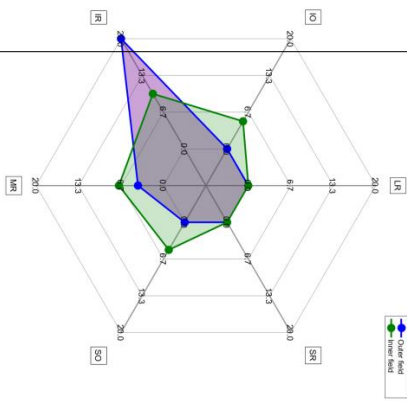


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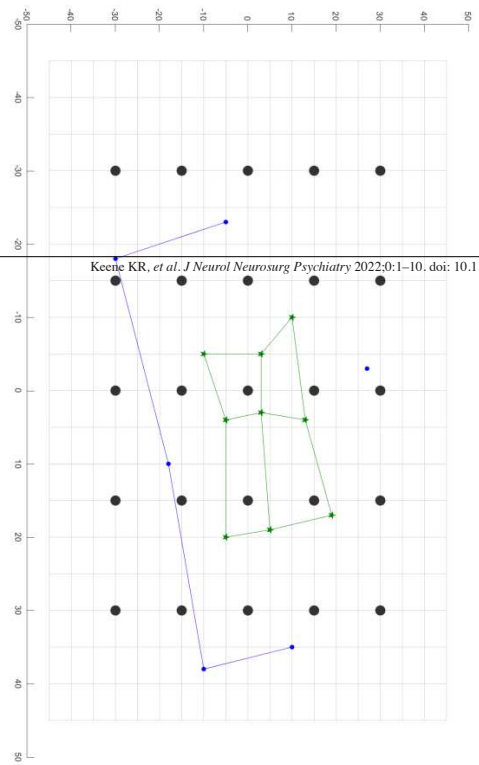
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J Neurol Neurosurg Psychiatry

## Muscles right



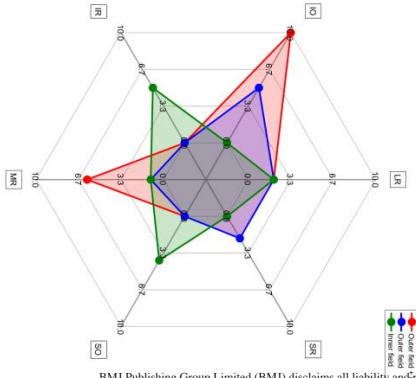
## Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

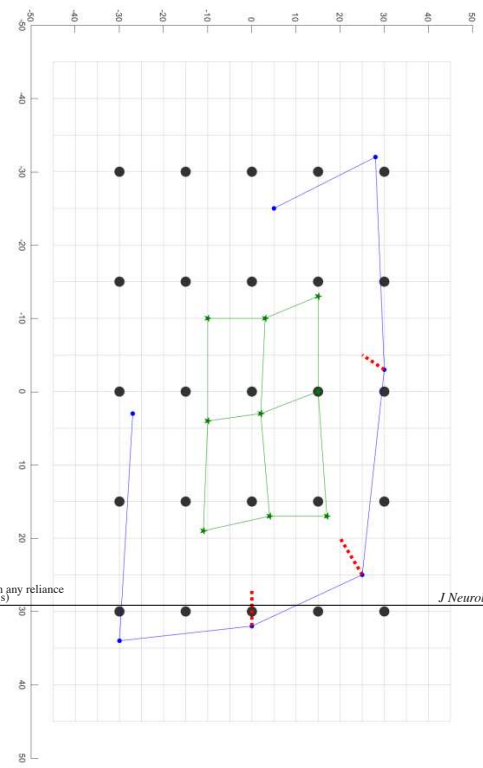
Patient number 57

### Muscles left



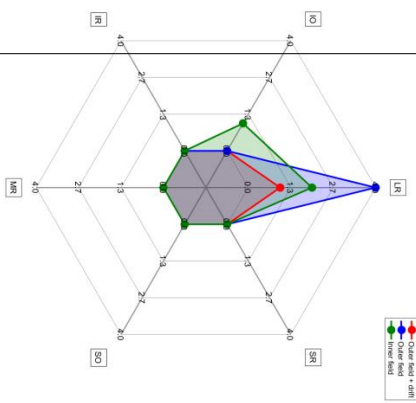
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### Hess chart left

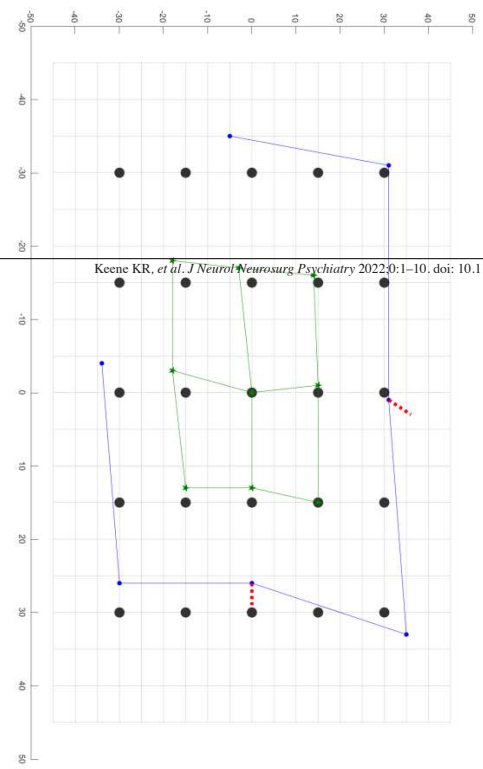


J Neurol Neurosurg Psychiatry

### Muscles right



### Hess chart right

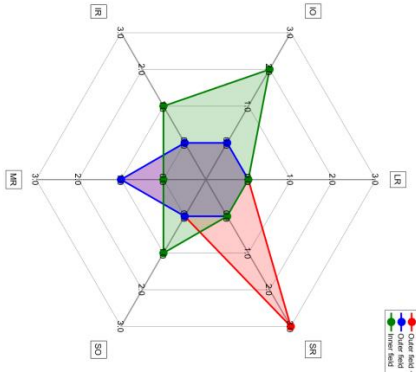


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

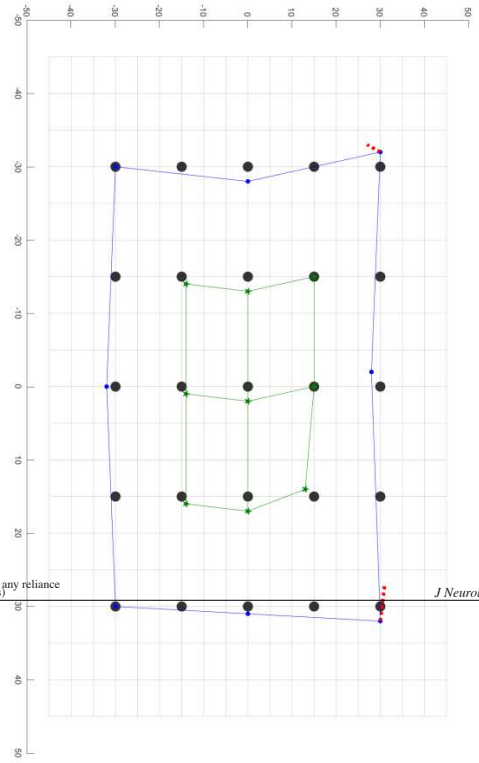
Patient number 58

## Muscles left



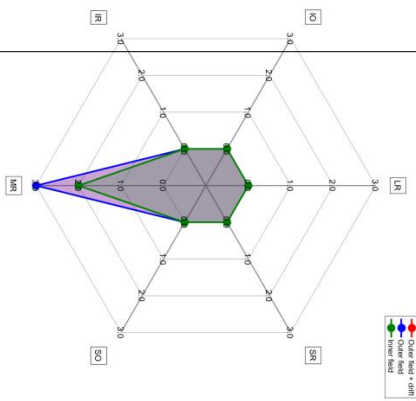
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## Hess chart left

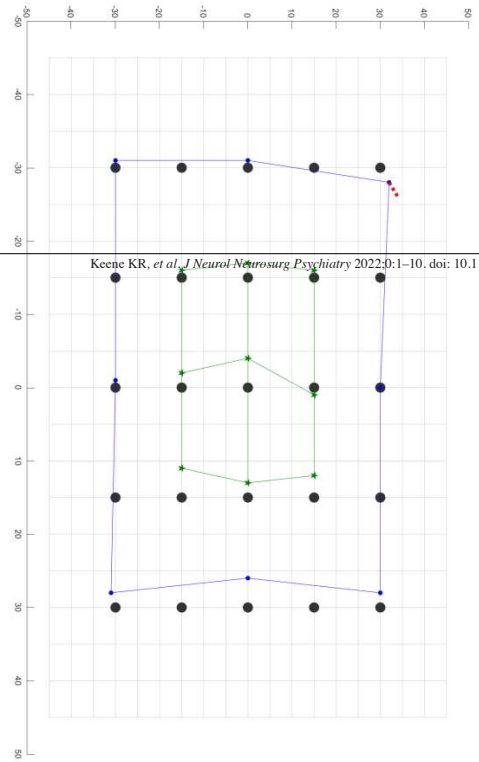


*J Neurol Neurosurg Psychiatry*

## Muscles right



## Hess chart right

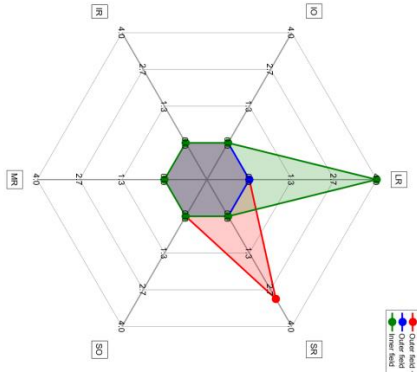


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

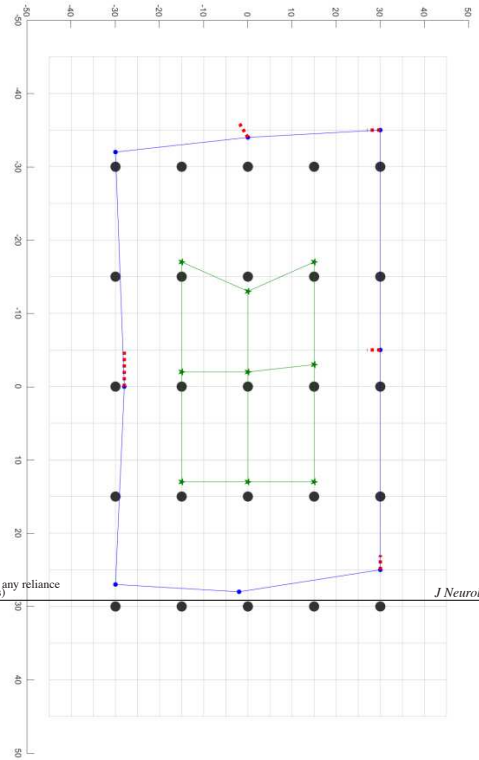
Patient number 59

## Muscles left



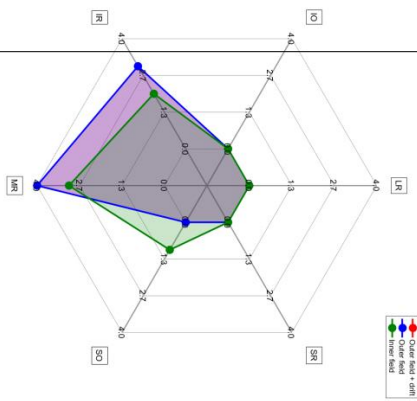
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## Hess chart left

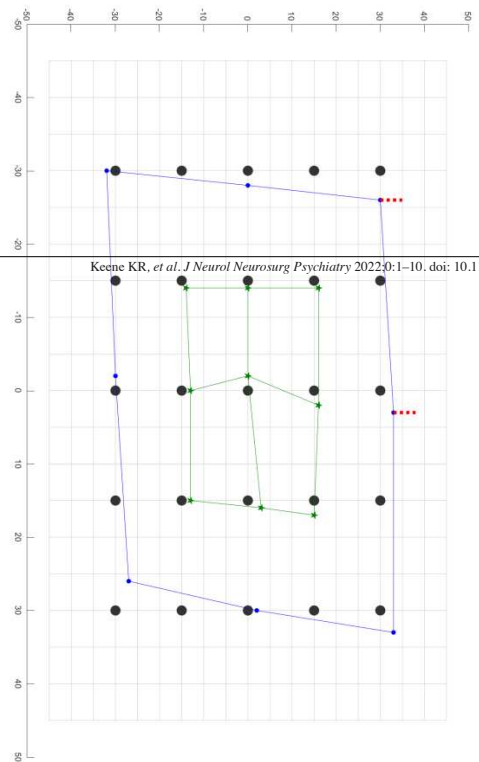


*J Neurol Neurosurg Psychiatry*

## Muscles right



## Hess chart right



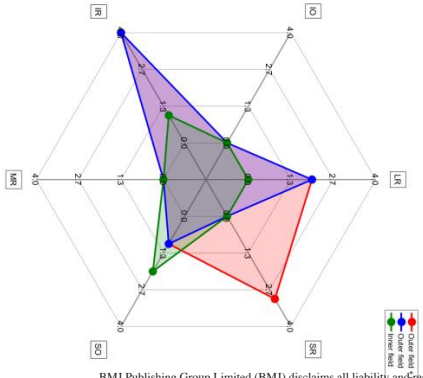
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Supplemental material

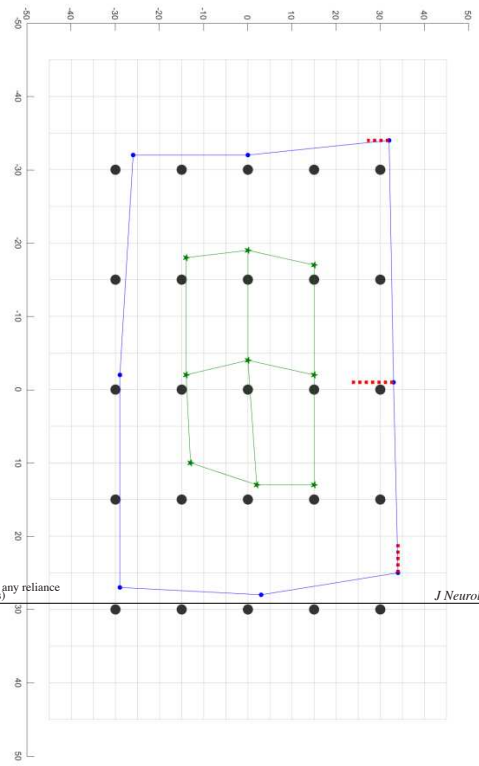
Patient number 60



### Muscles left



### Hess chart left

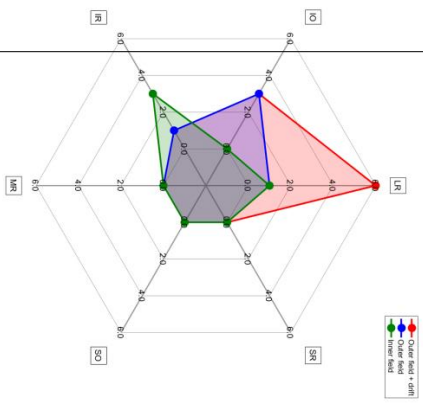


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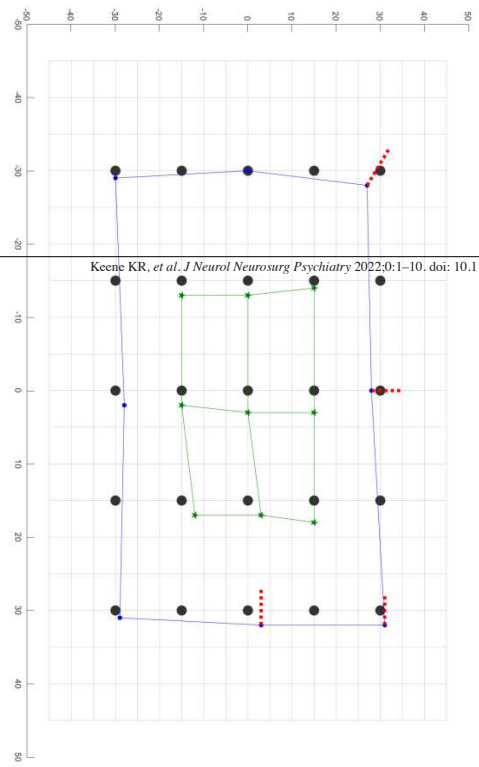
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### Muscles right



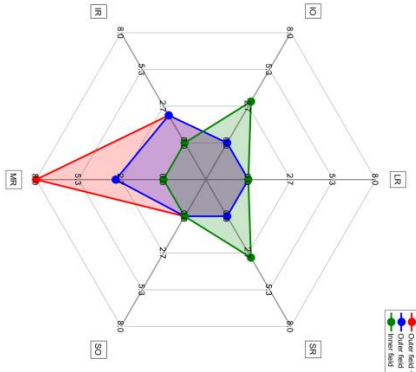
### Hess chart right



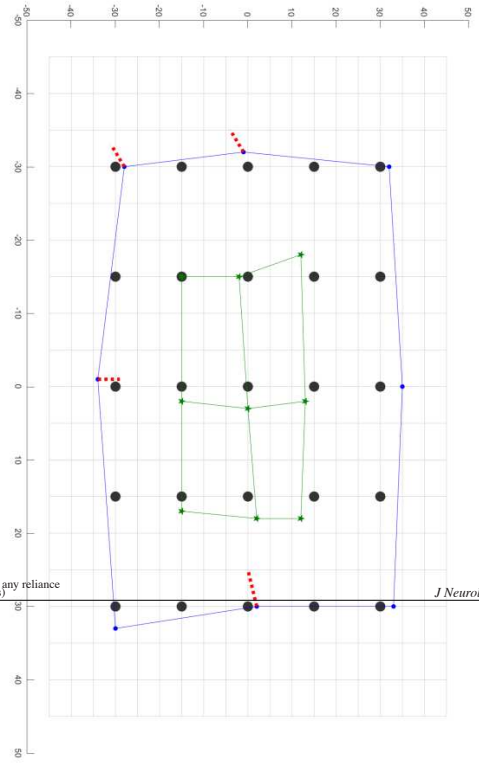
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 61

## Muscles left



## Hess chart left

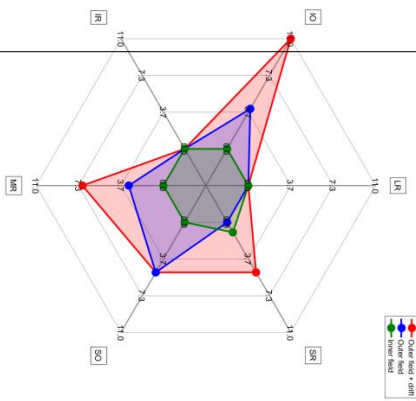


Supplemental material

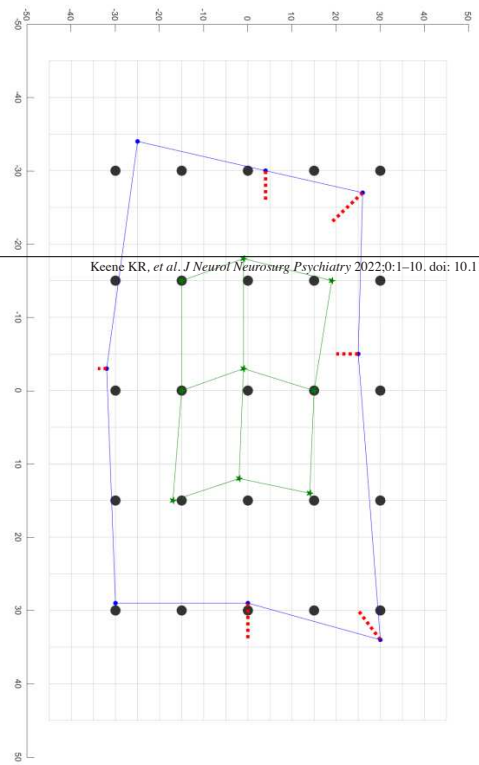
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## Muscles right



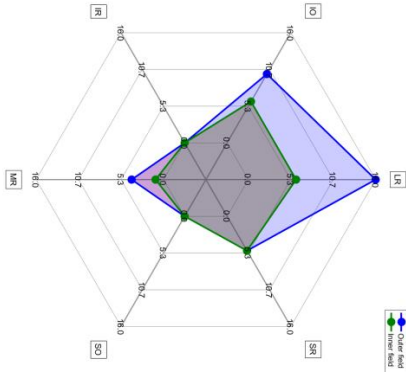
## Hess chart right



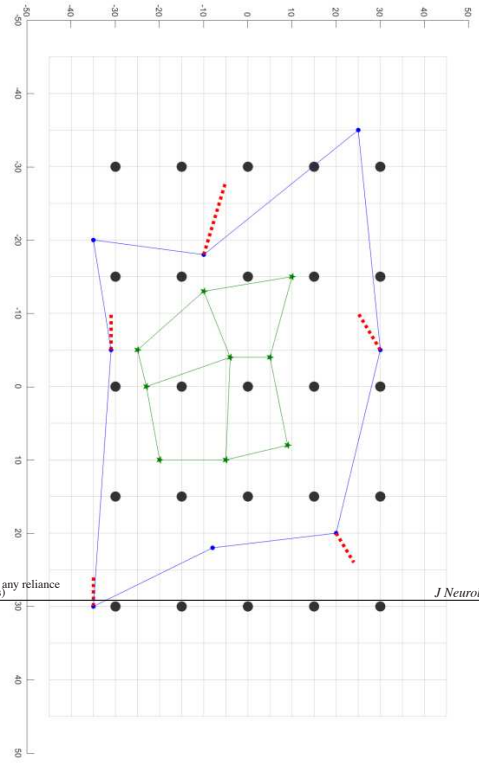
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 62

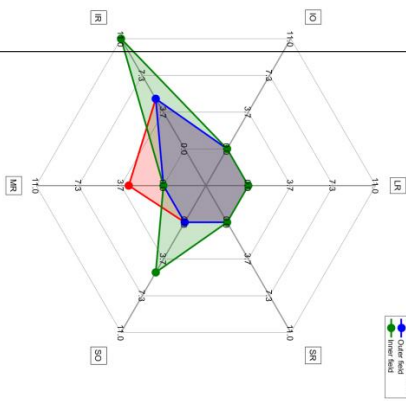
### Muscles left



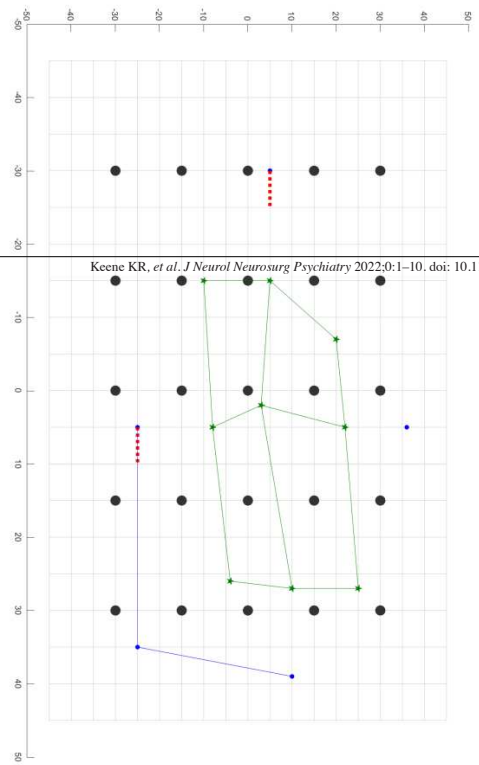
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

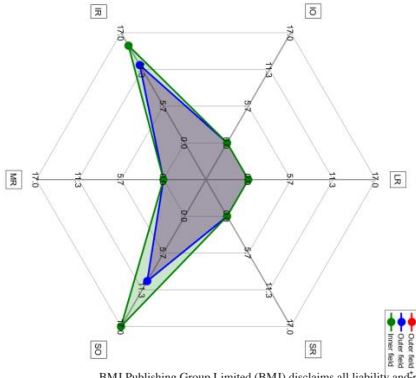
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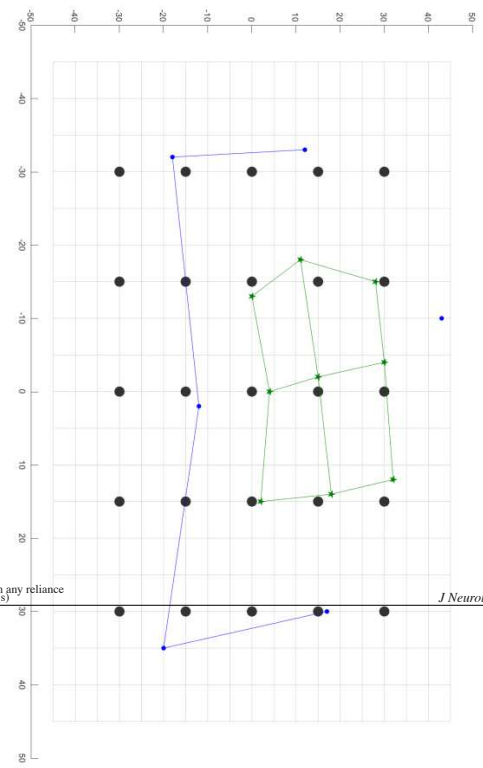
**Patient number 63**

### Muscles left



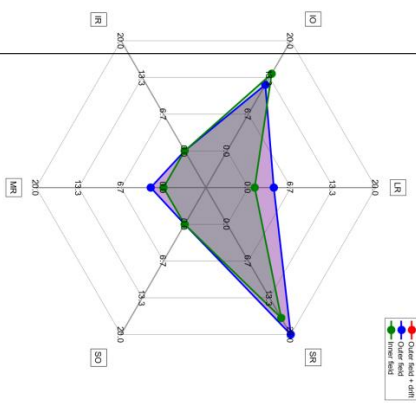
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### Hess chart left

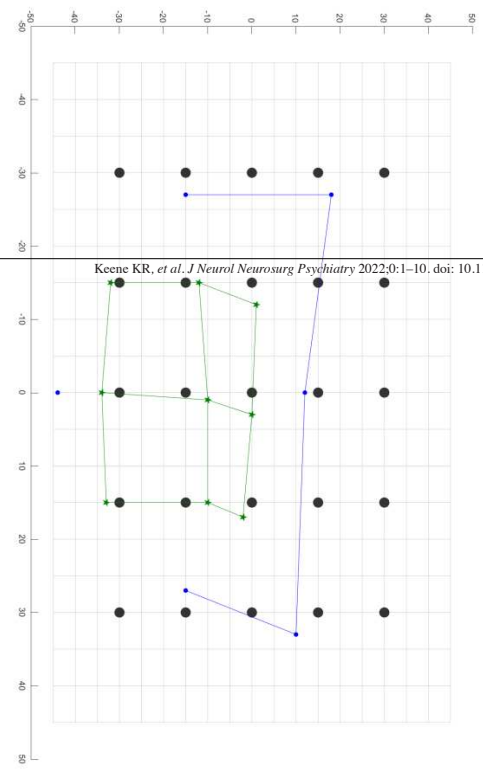


J Neurol Neurosurg Psychiatry

### Muscles right



### Hess chart right

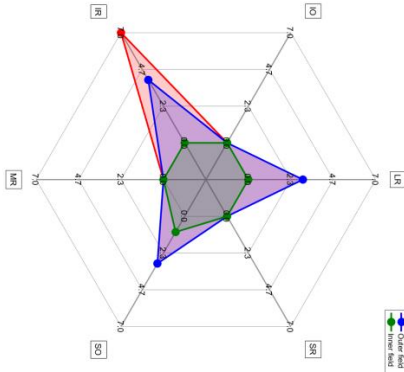


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Supplemental material

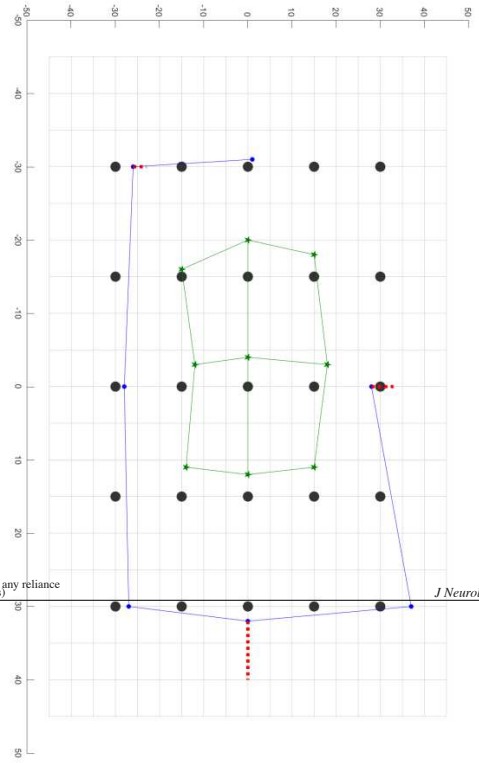
Patient number 64

### Muscles left



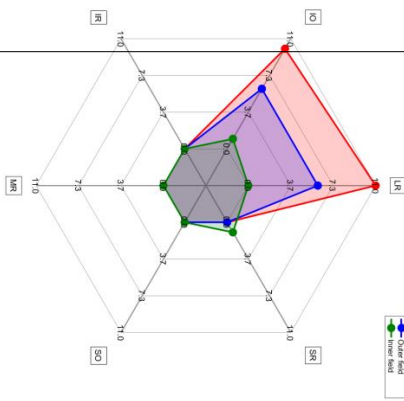
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### Hess chart left

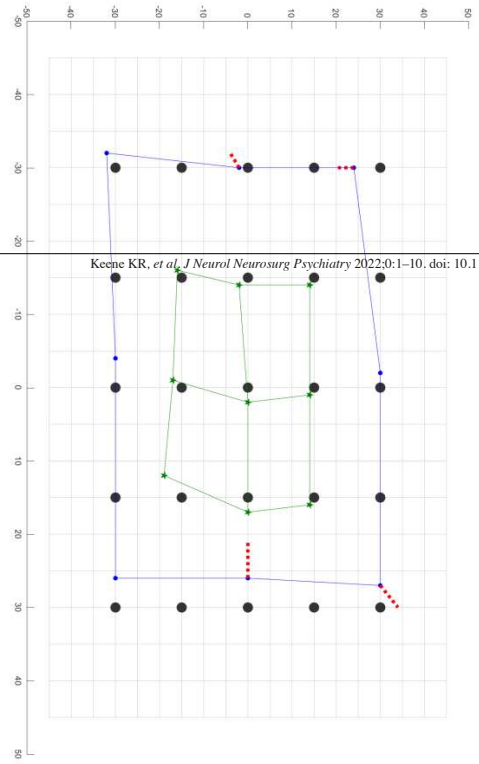


*J Neurol Neurosurg Psychiatry*

### Muscles right



### Hess chart right

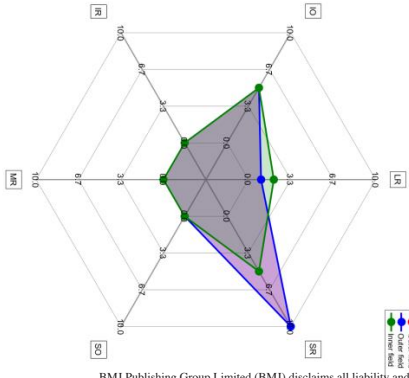


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

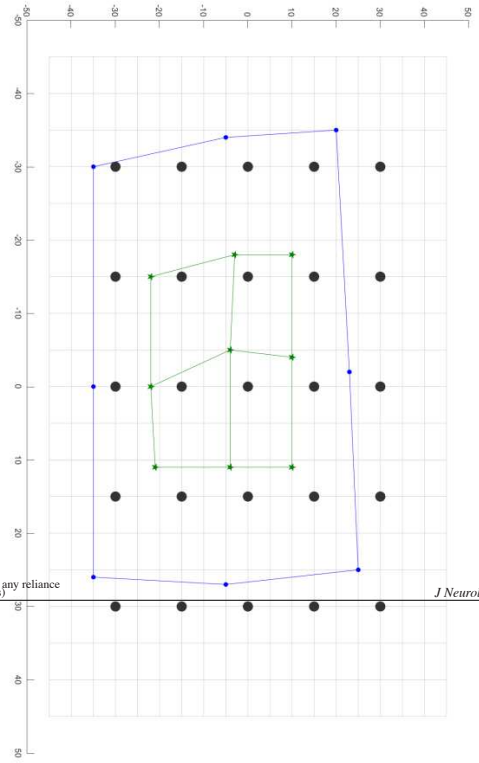
Supplemental material

Patient number 65

### Muscles left



### Hess chart left

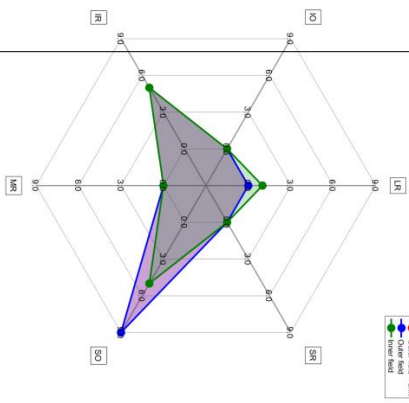


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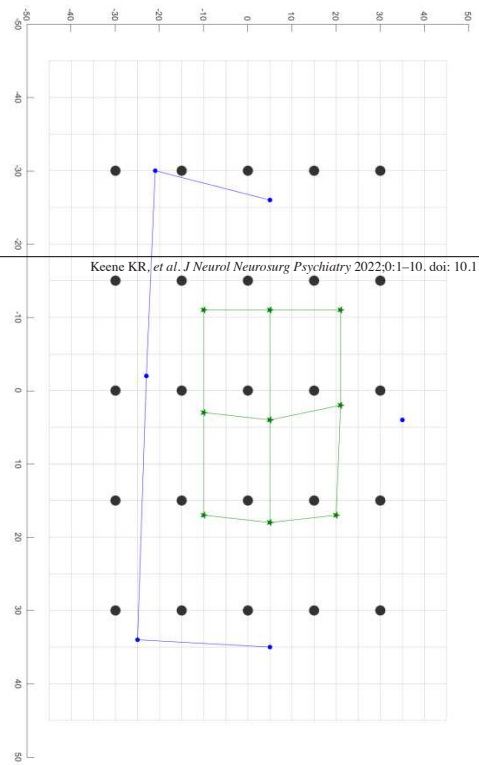
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### Muscles right



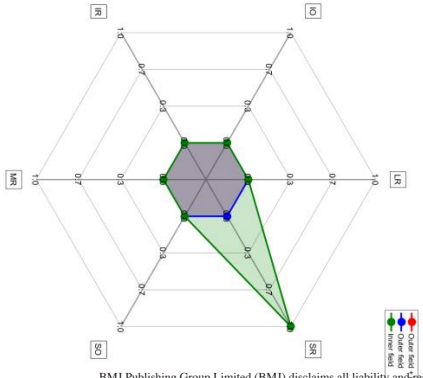
### Hess chart right



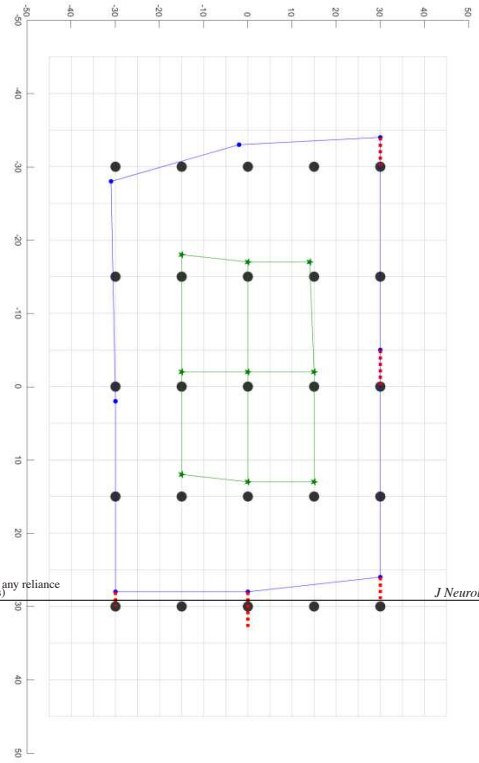
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 66

## Muscles left



## Hess chart left

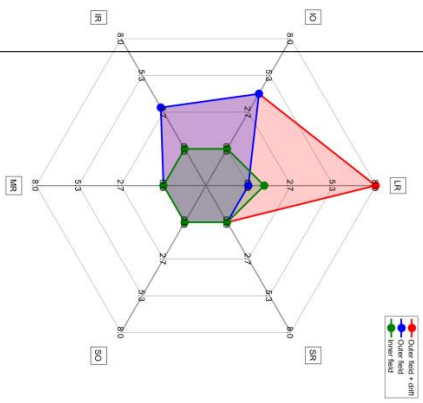


Supplemental material

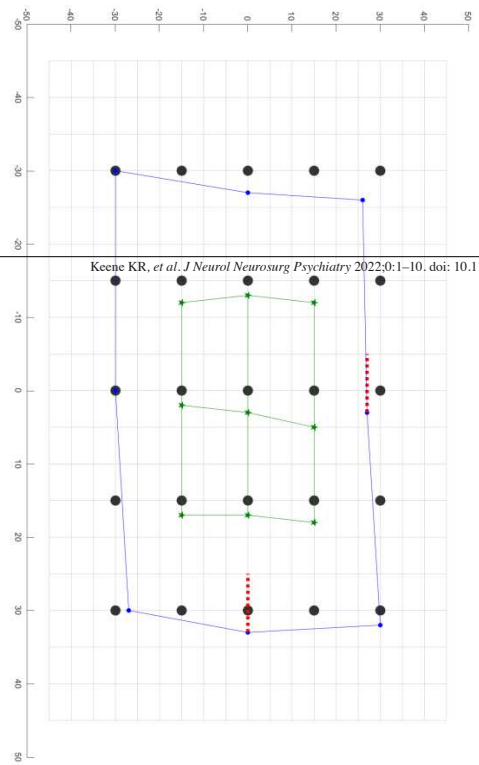
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## Muscles right



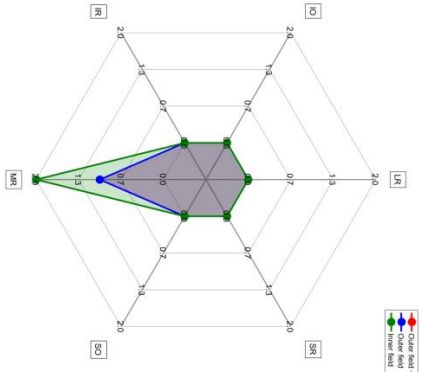
## Hess chart right



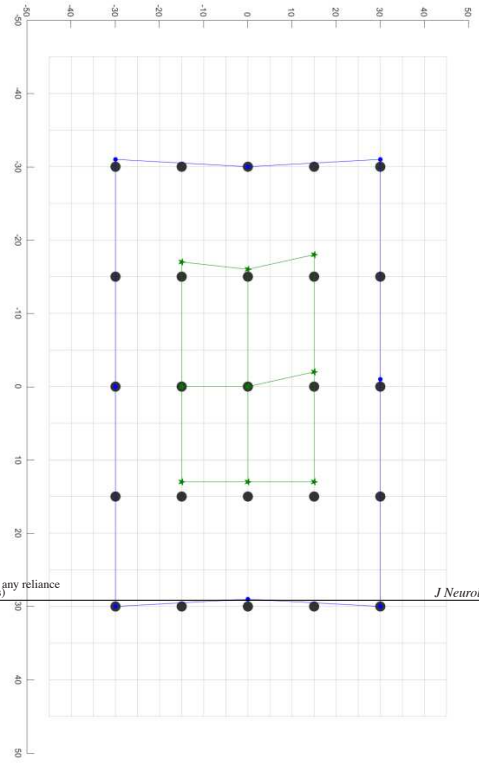
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 67

### Muscles left



### Hess chart left

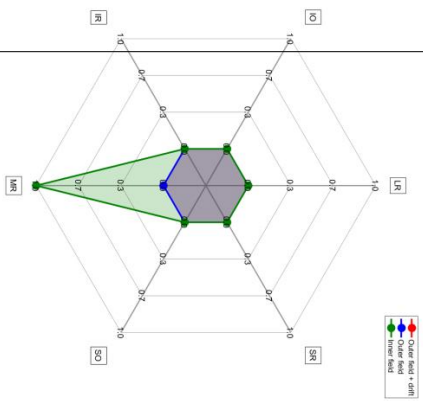


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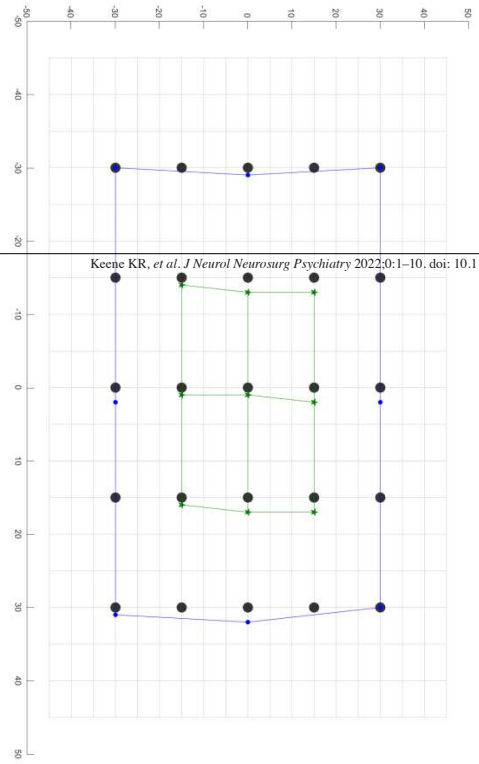
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### Muscles right



### Hess chart right

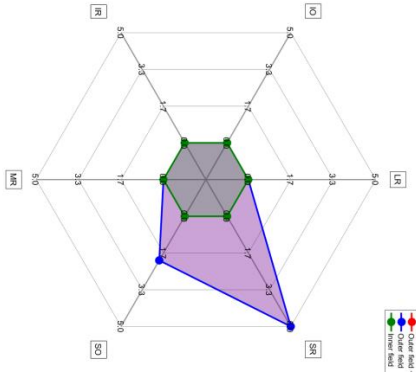


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

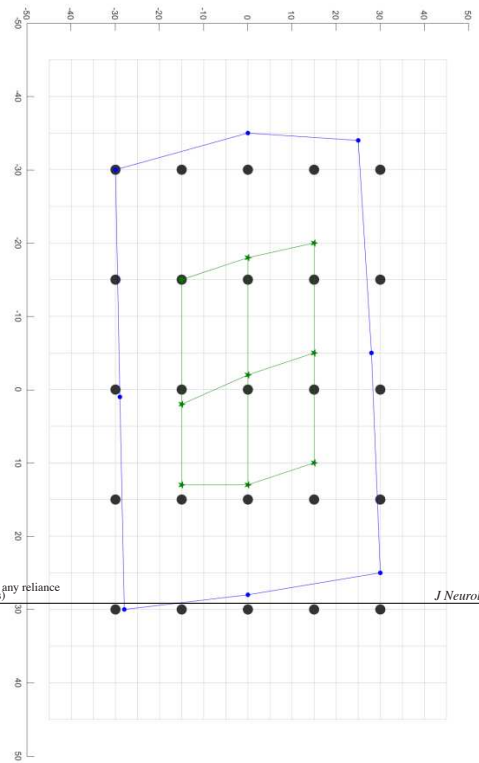
Patient number 68



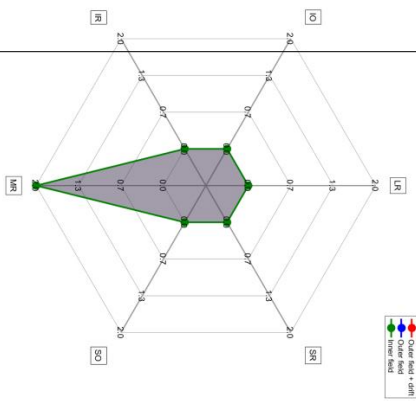
### Muscles left



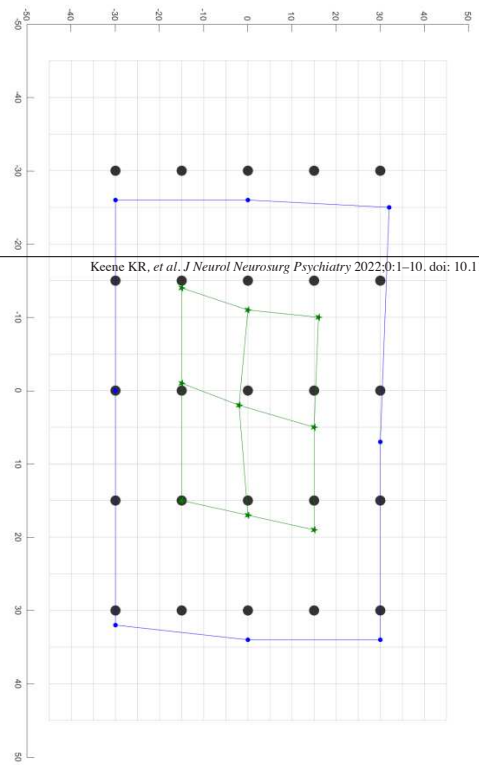
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

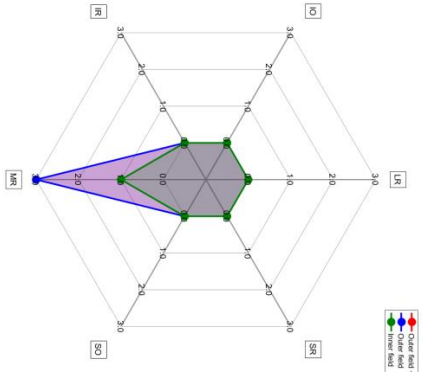
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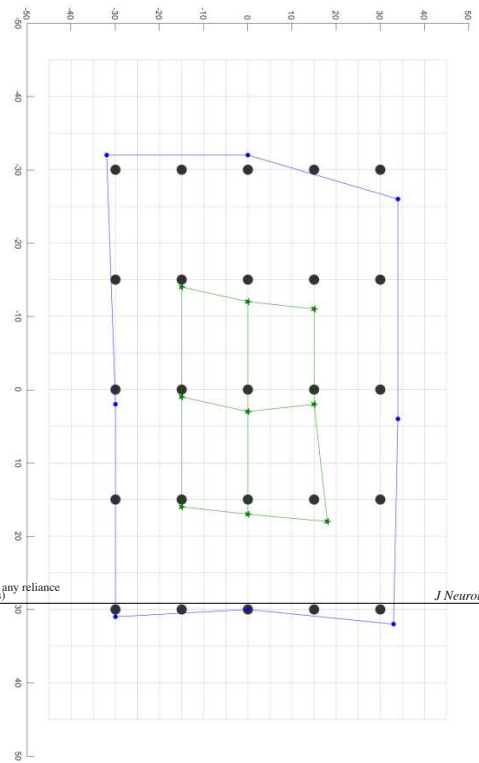
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 69

### Muscles left



### Hess chart left

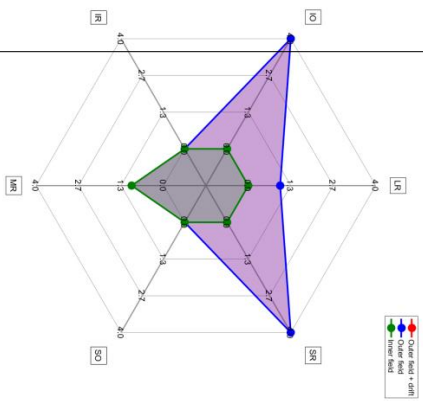


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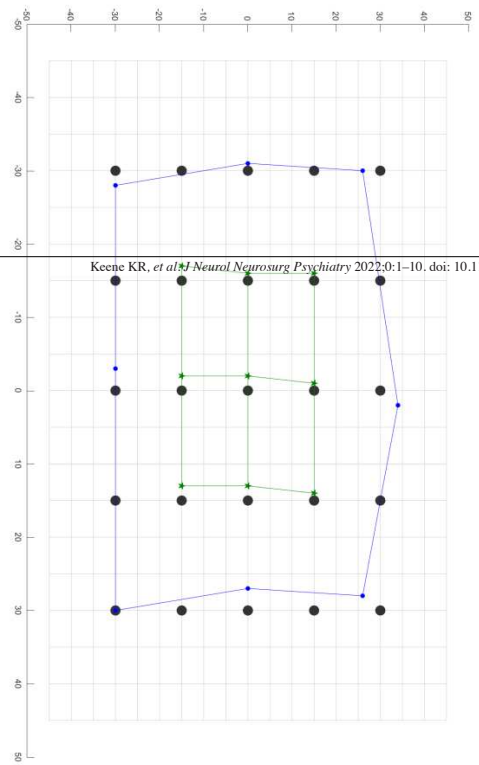
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### Muscles right



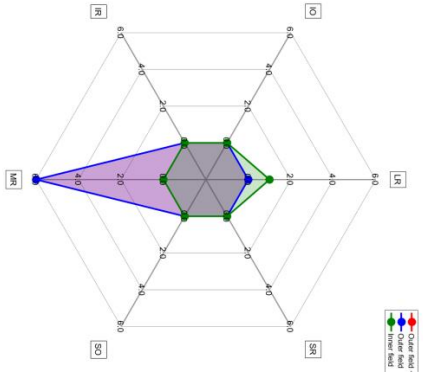
### Hess chart right



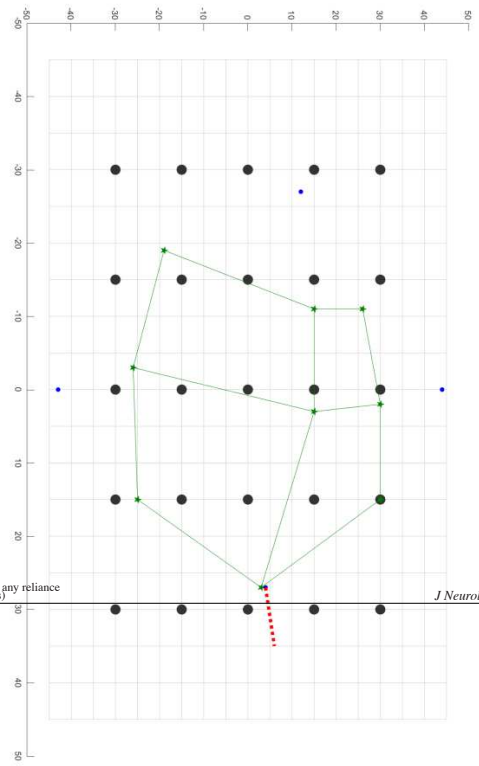
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 70

### Muscles left



### Hess chart left

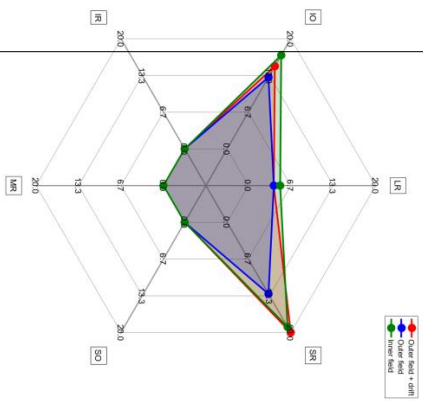


Supplemental material

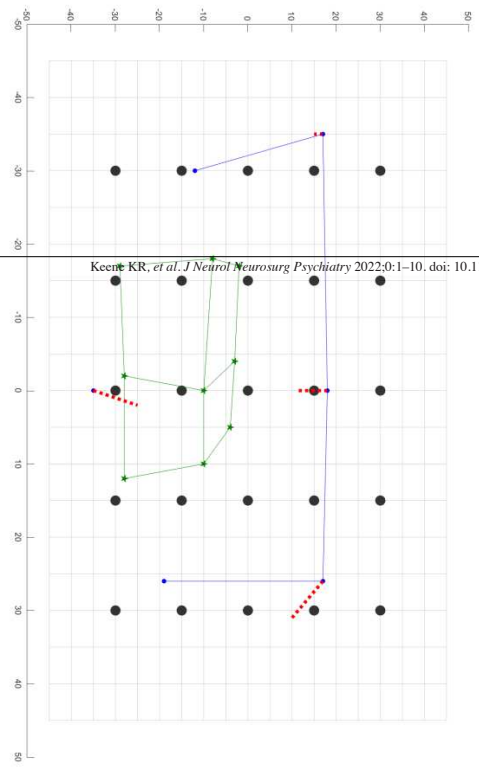
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### Muscles right



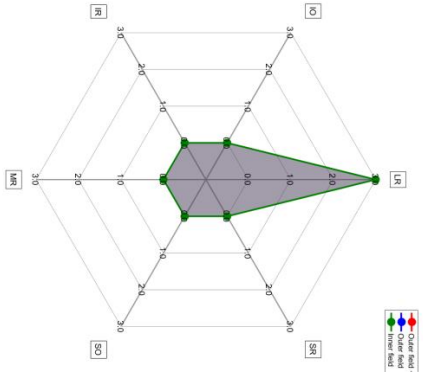
### Hess chart right



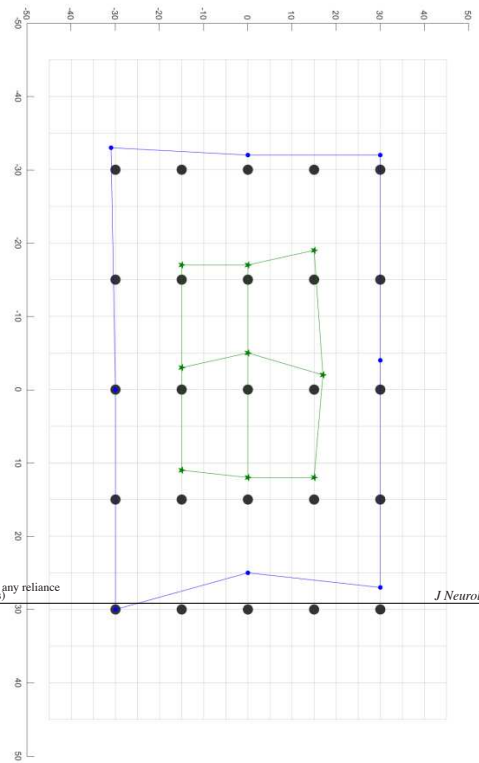
Keent KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

**Patient number 71**

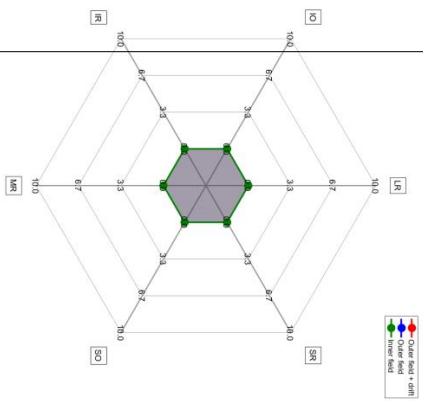
### Muscles left



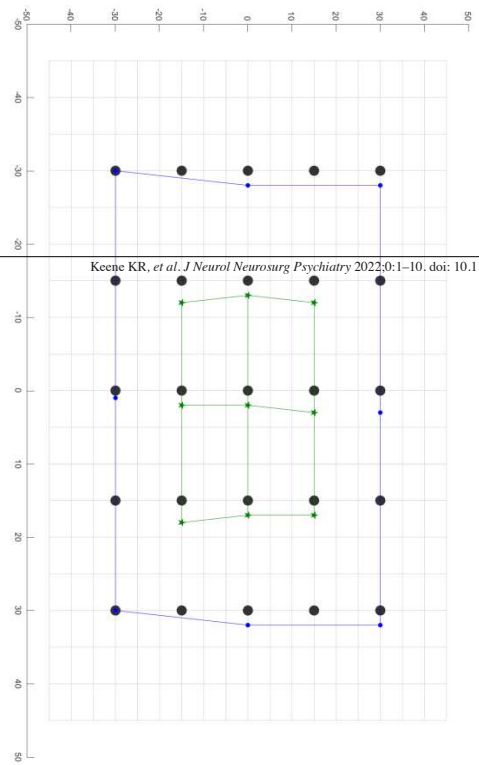
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

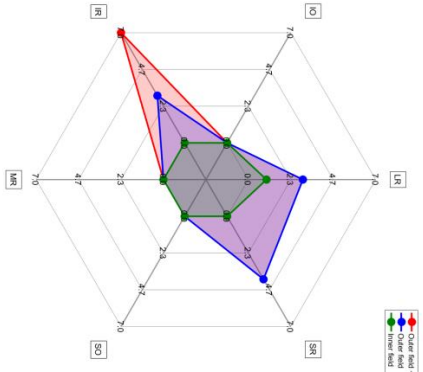
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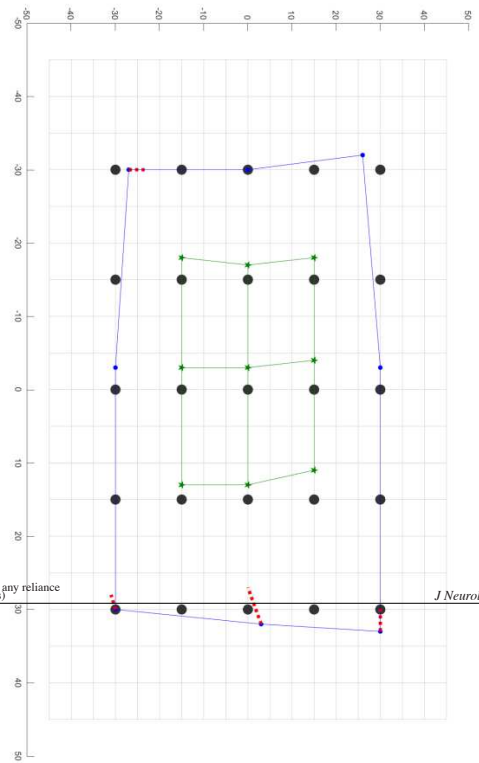
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 72

### Muscles left



### Hess chart left

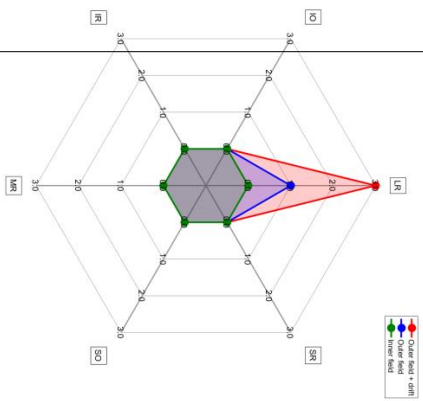


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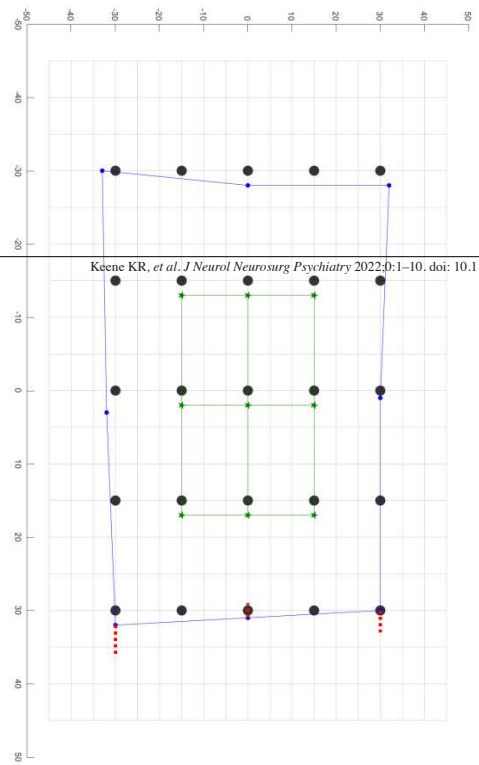
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### Muscles right



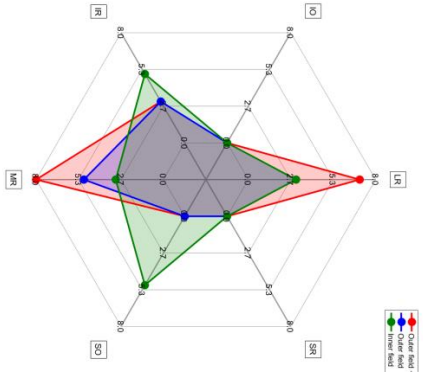
### Hess chart right



Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

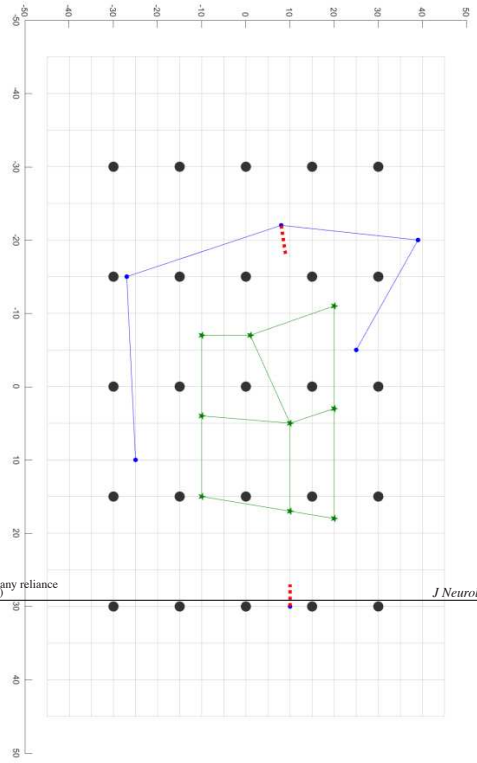
Patient number 73

### Muscles left



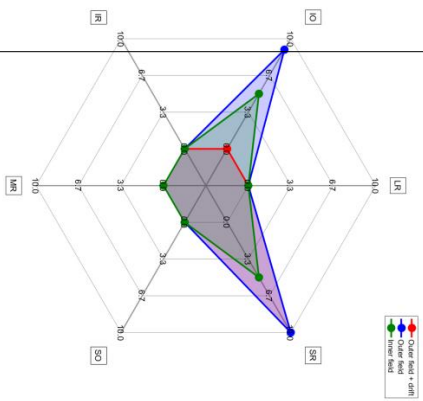
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### Hess chart left

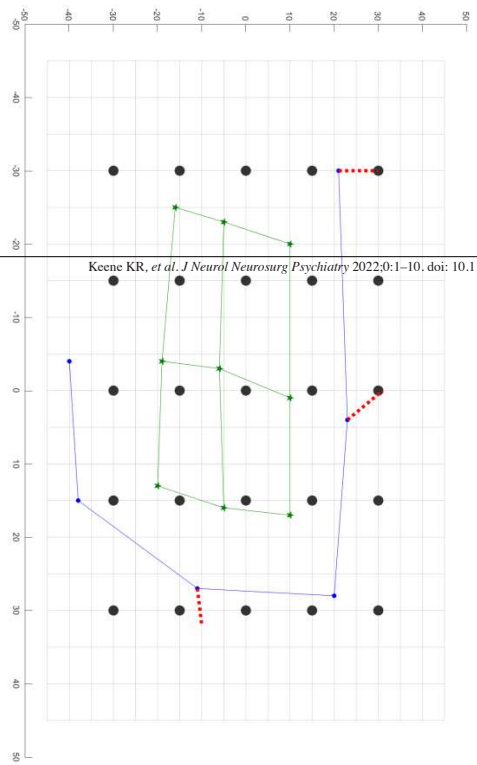


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### Muscles right



### Hess chart right

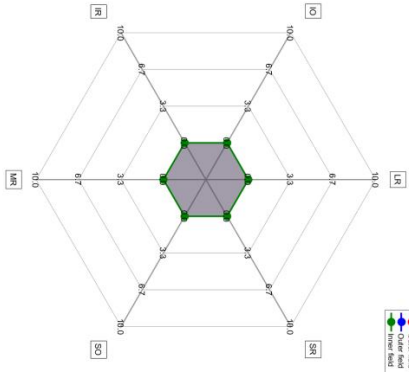


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

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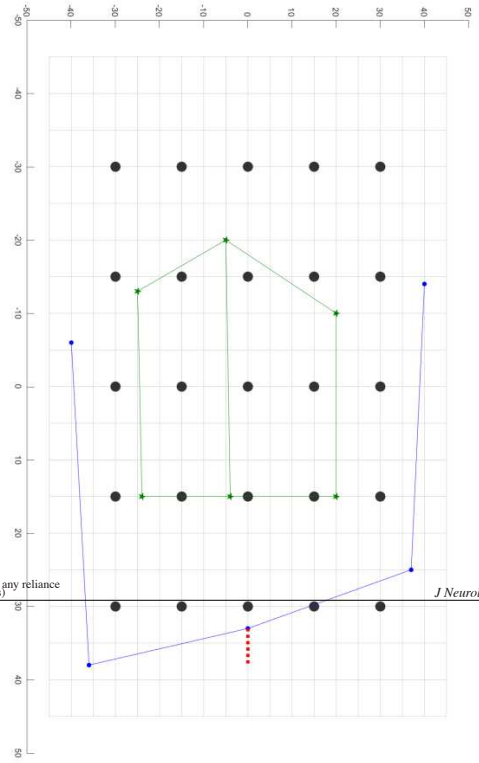
**Patient number 74**

# Muscles left



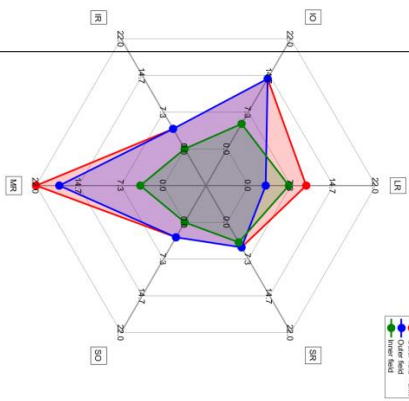
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# Hess chart left

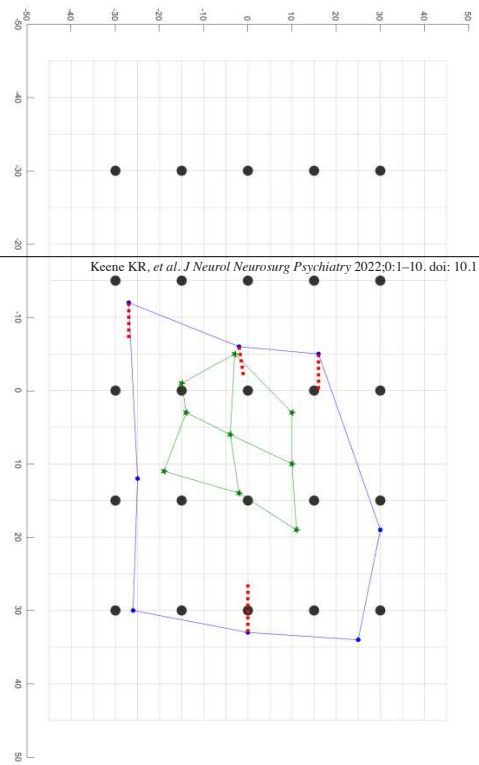


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# Muscles right



# Hess chart right

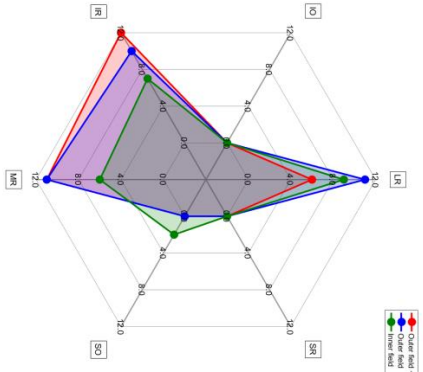


Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

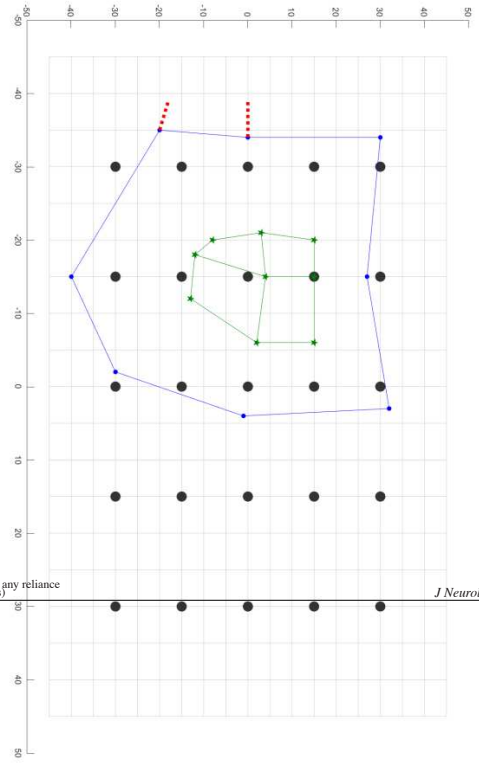
Supplemental material

Patient number 75

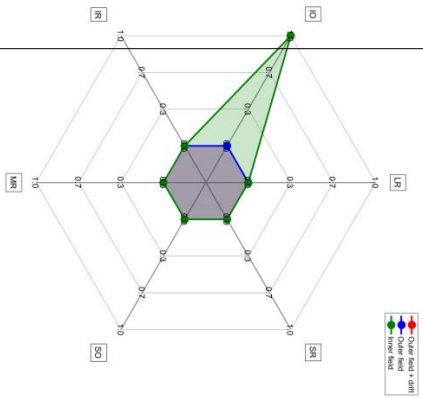
### Muscles left



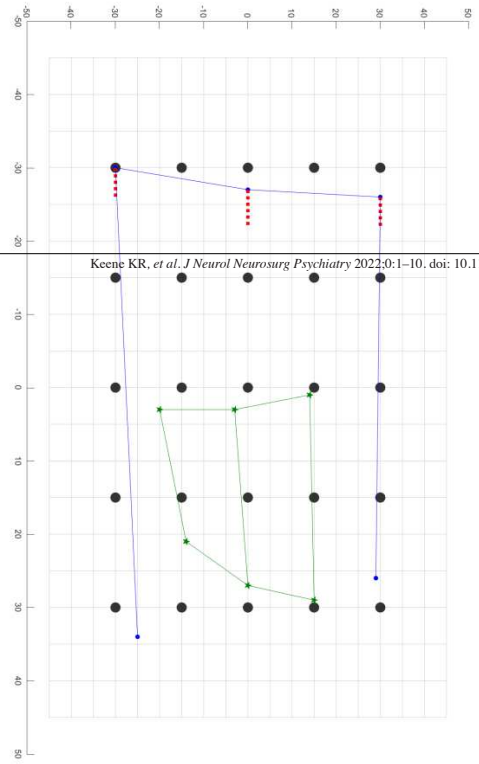
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

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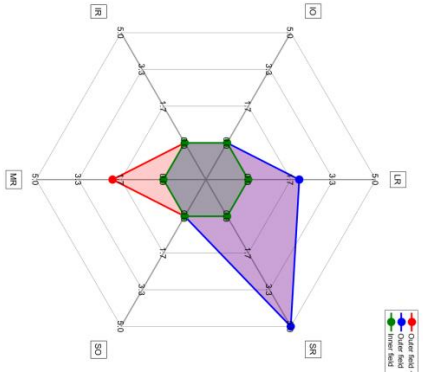
J Neurol Neurosurg Psychiatry

Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

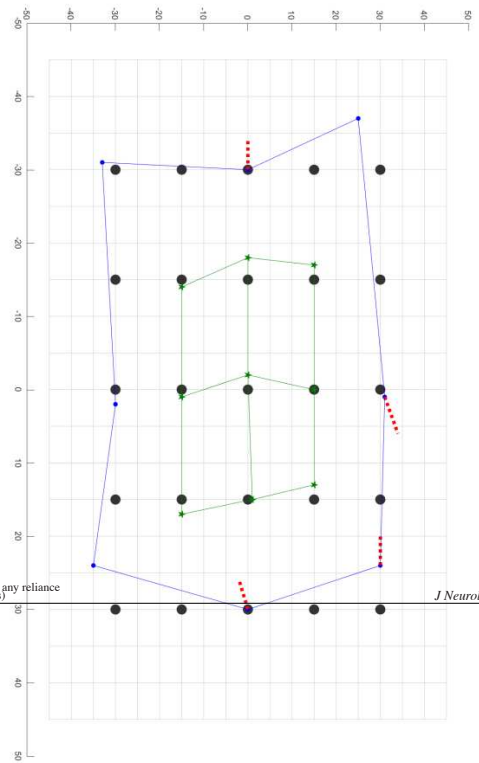
Patient number 76



### Muscles left



### Hess chart left

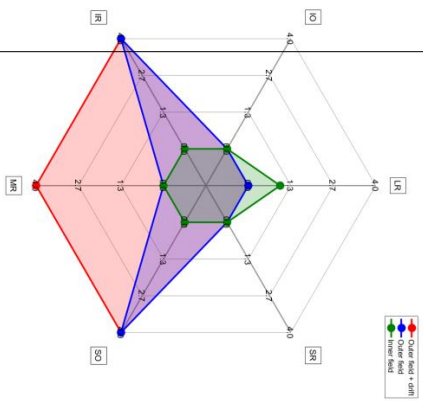


Supplemental material

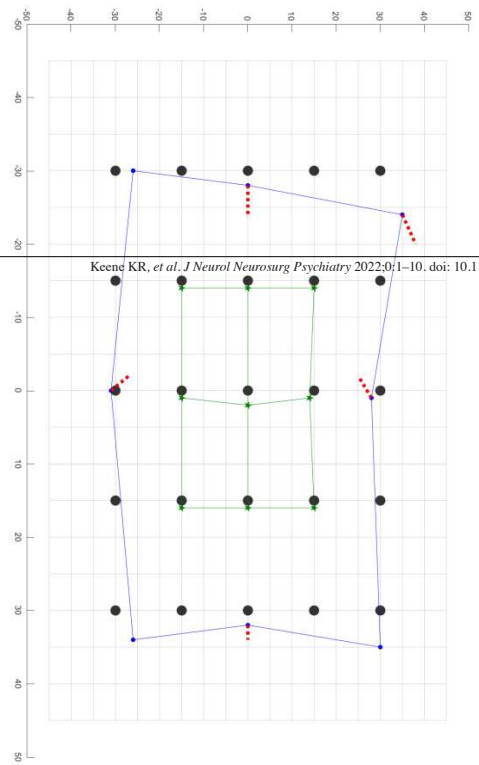
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### Muscles right



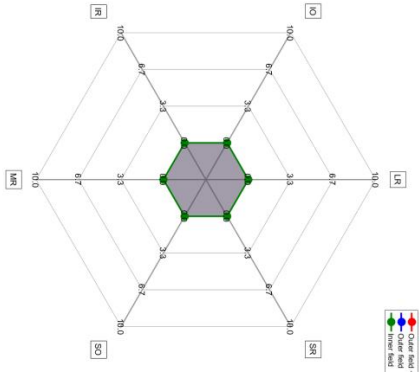
### Hess chart right



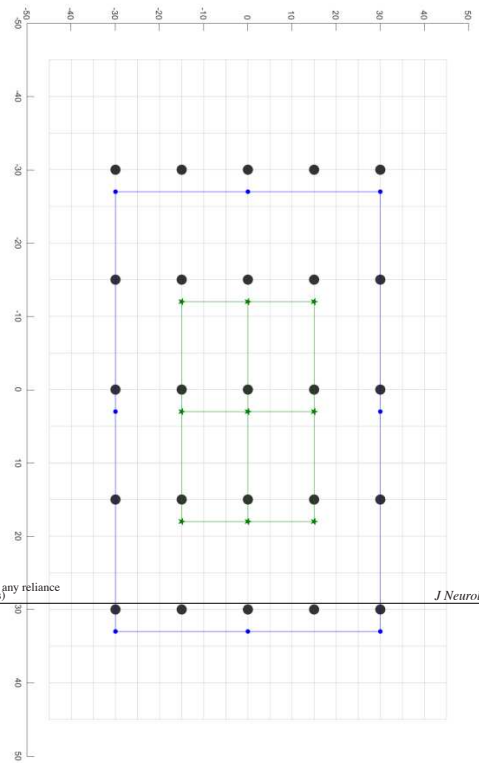
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 77

# Muscles left



# Hess chart left

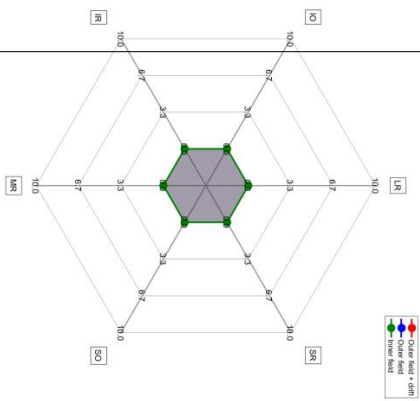


Supplemental material

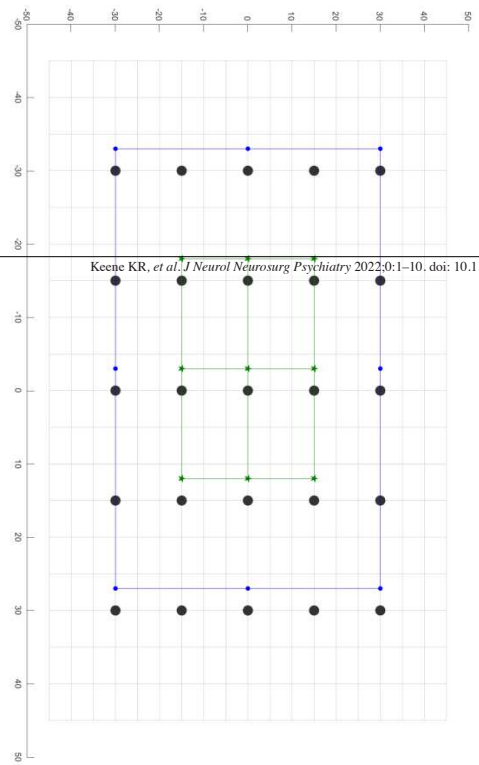
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# Muscles right



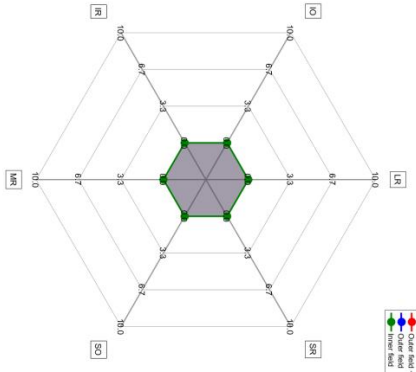
# Hess chart right



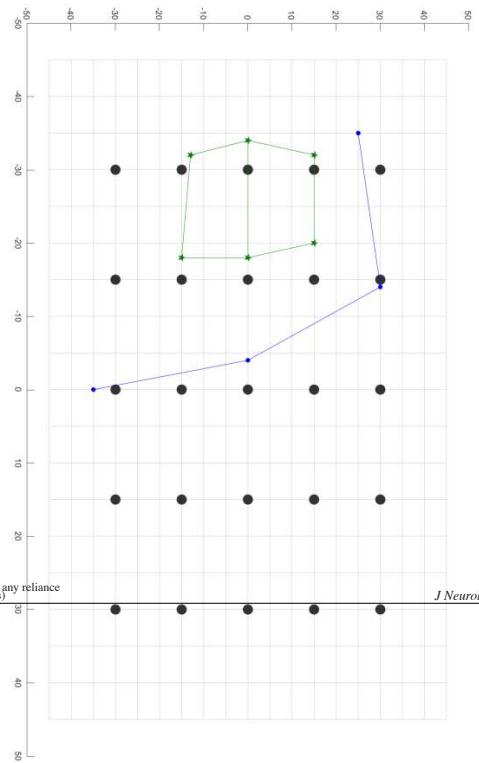
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

**Patient number 78**

### Muscles left



### Hess chart left

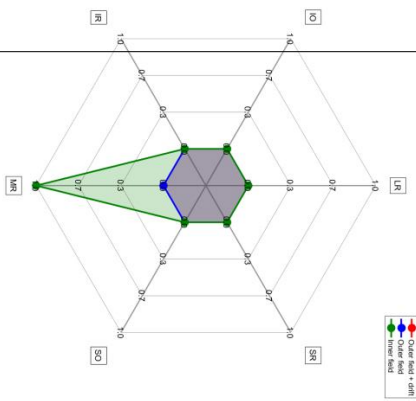


Supplemental material

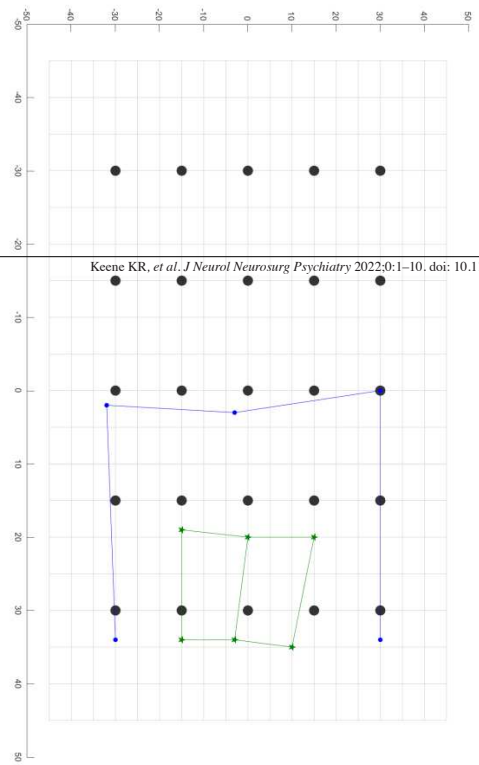
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### Muscles right



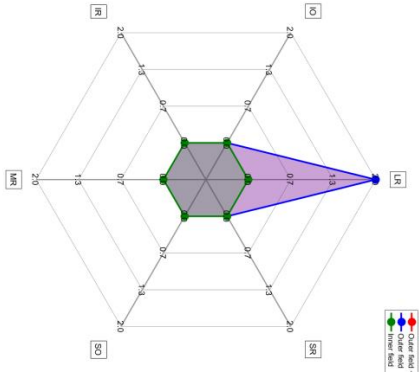
### Hess chart right



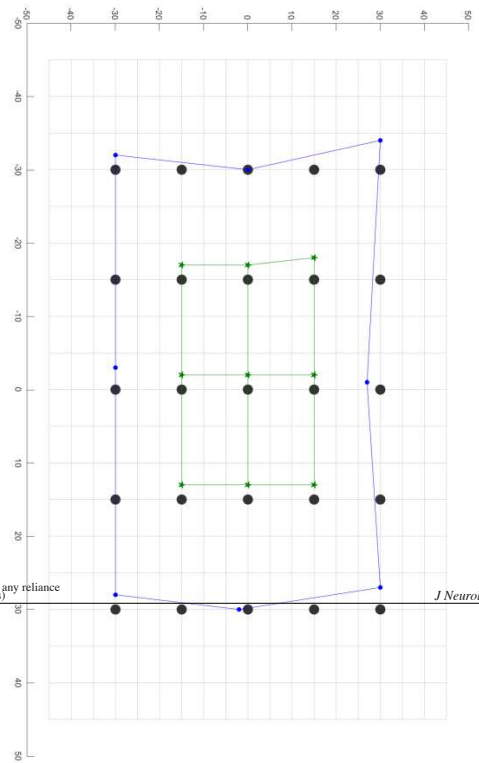
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 79

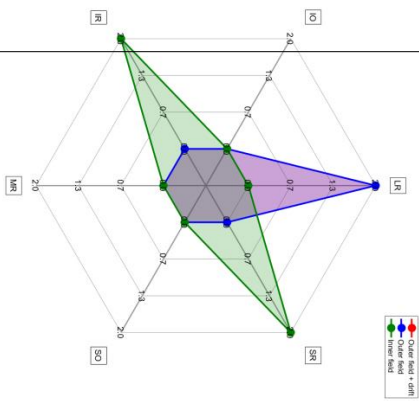
### Muscles left



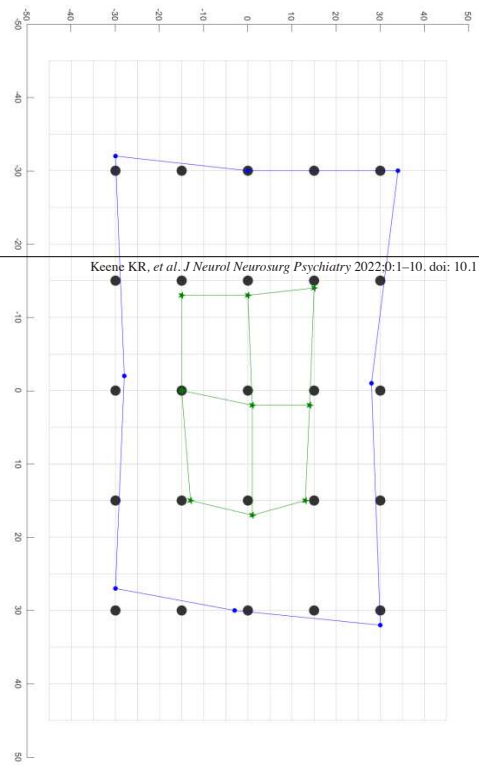
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

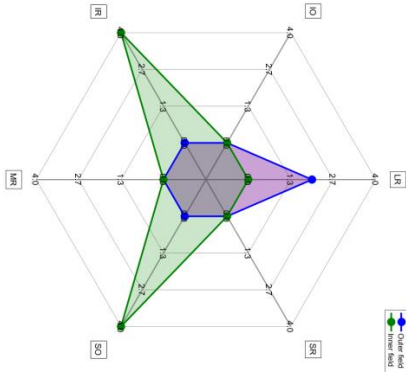
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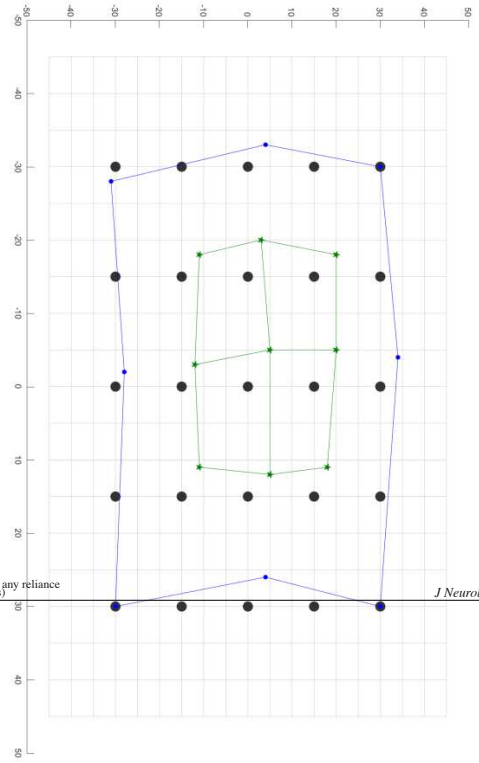
Patient number 80

## Muscles left



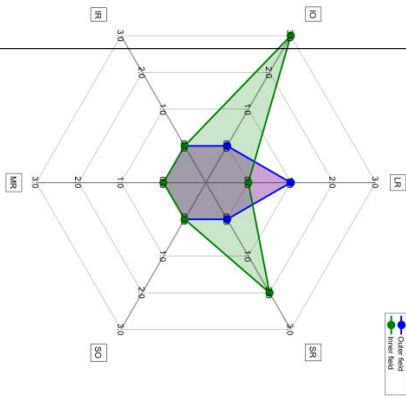
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## Hess chart left

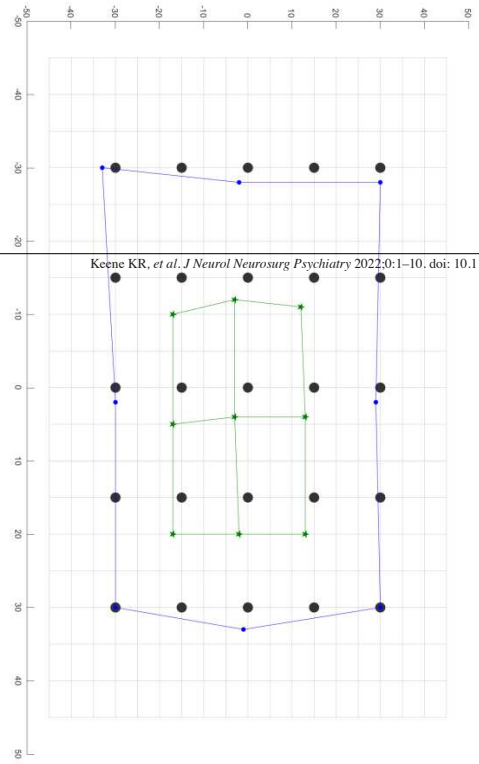


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## Muscles right



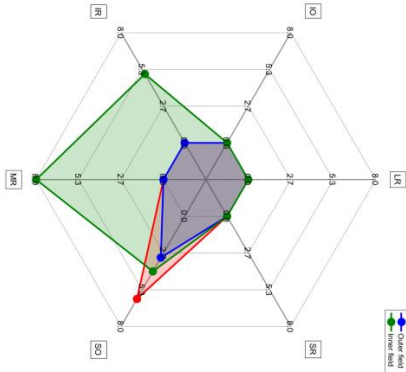
## Hess chart right



Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

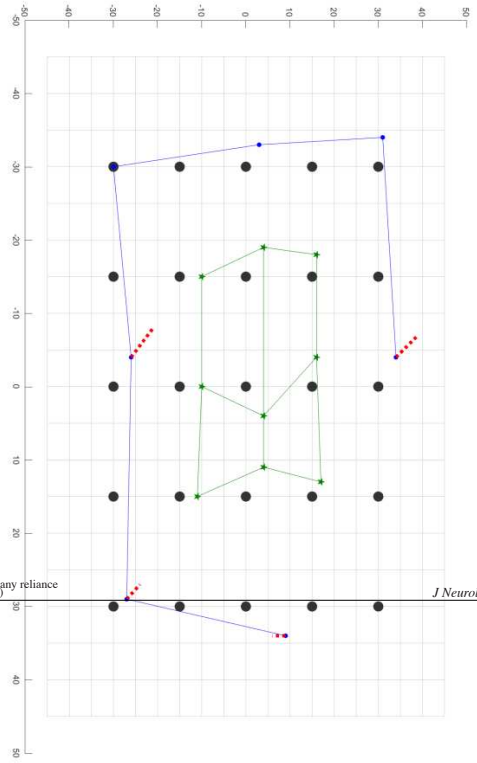
Supplemental material

## Muscles left



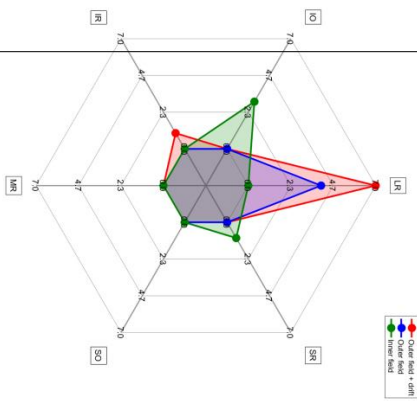
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## Hess chart left

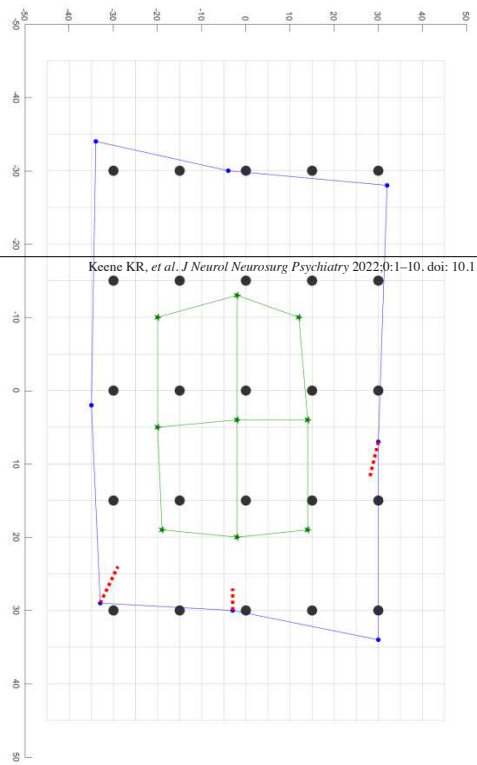


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## Muscles right



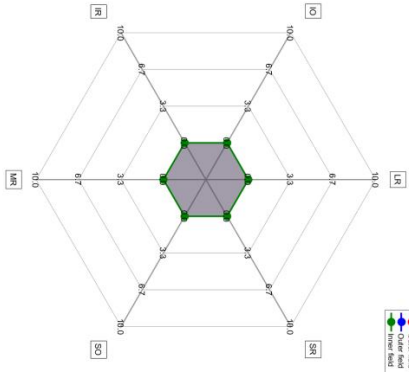
## Hess chart right



Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

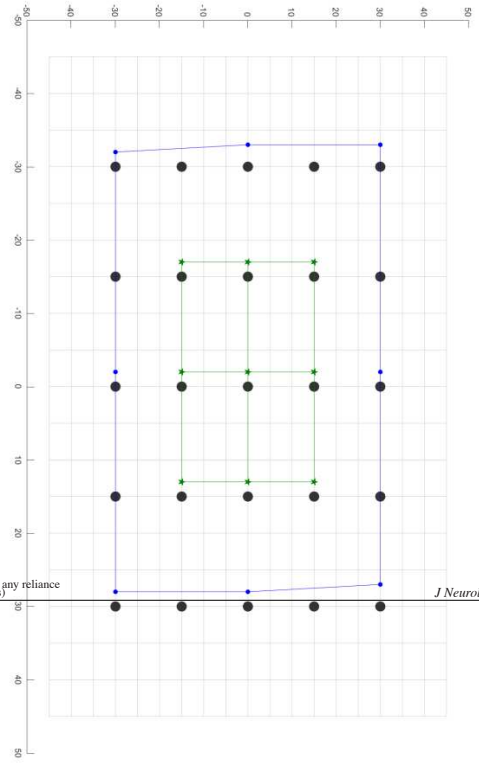
Supplemental material

### Muscles left



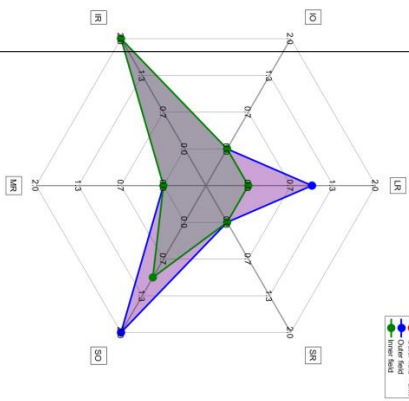
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### Hess chart left

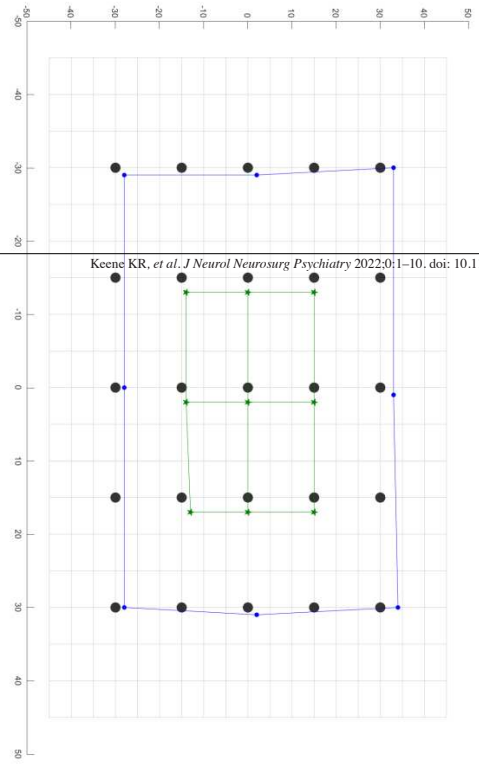


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### Muscles right



### Hess chart right

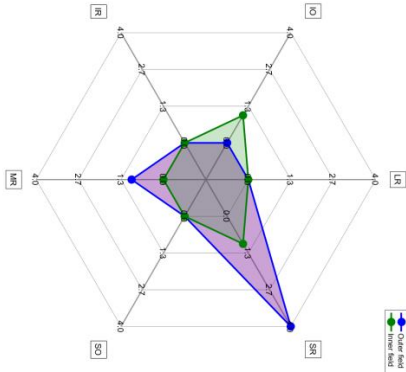


Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

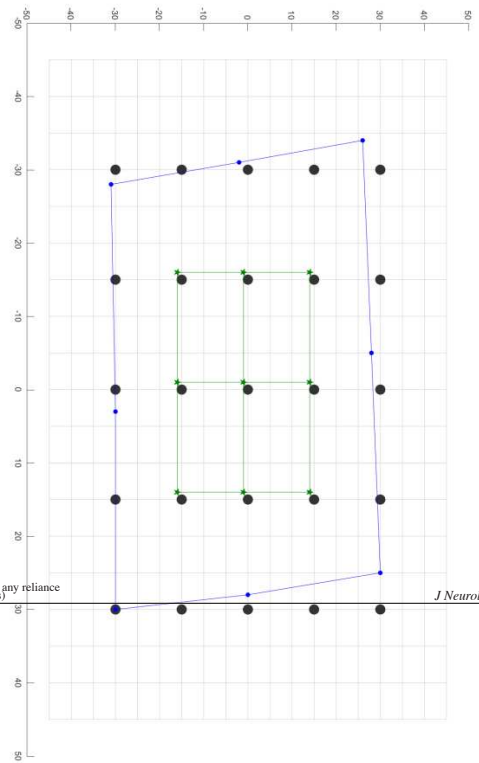
Supplemental material

Patient number 83

### Muscles left



### Hess chart left

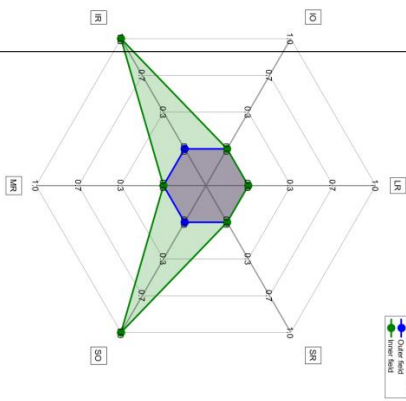


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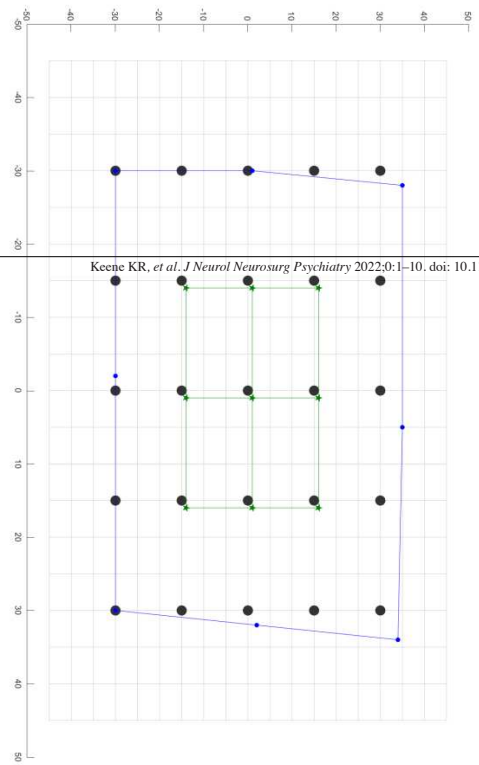
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### Muscles right



### Hess chart right

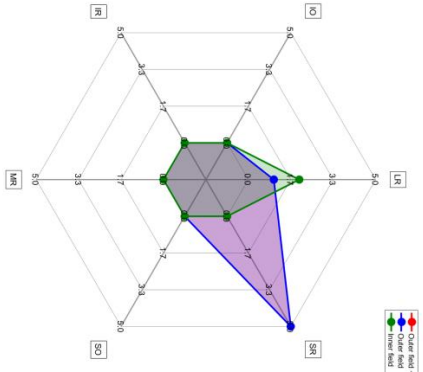


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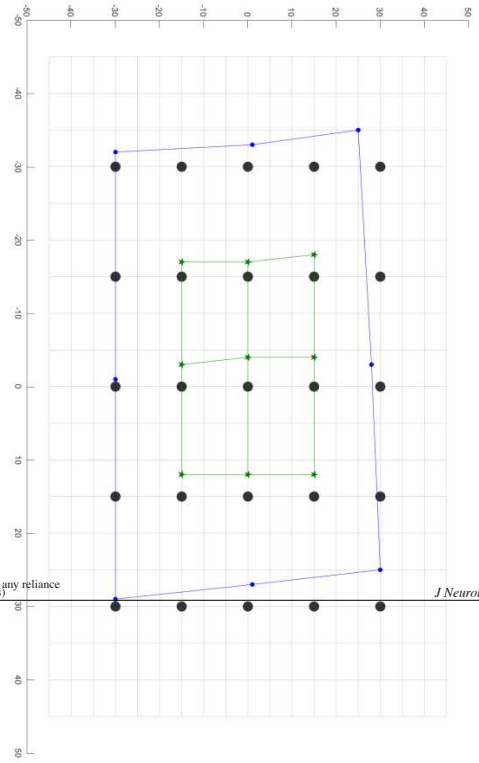
Patient number 84



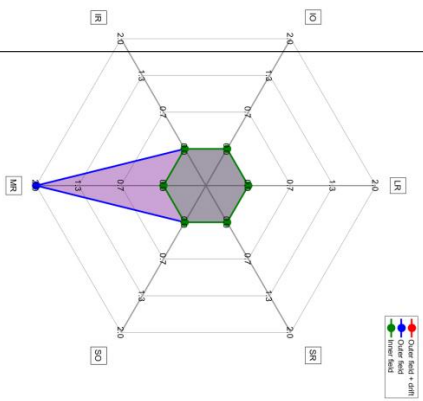
### Muscles left



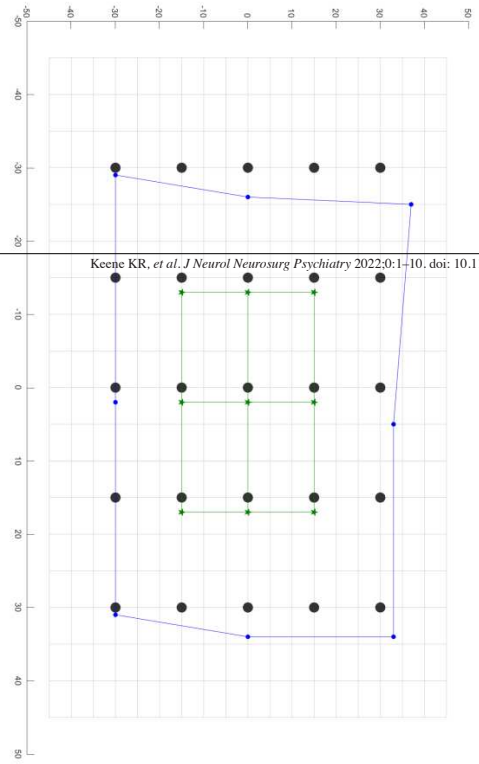
### Hess chart left



### Muscles right



### Hess chart right



Supplemental material

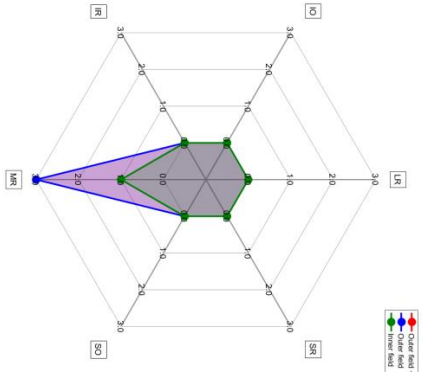
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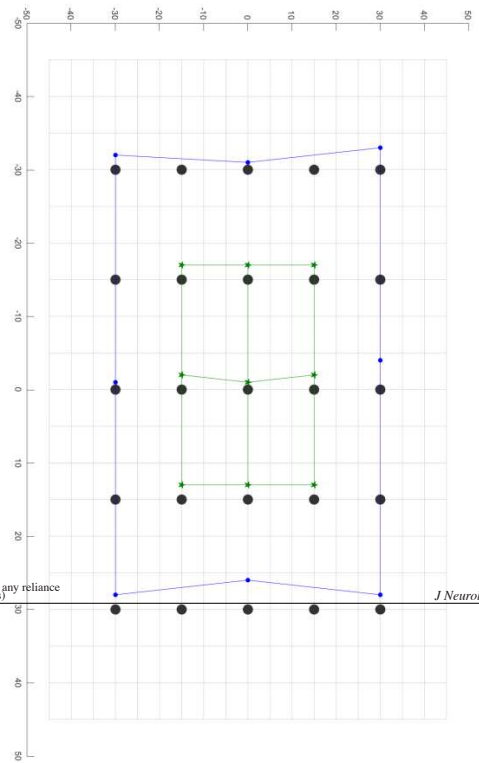
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 85

### Muscles left



### Hess chart left

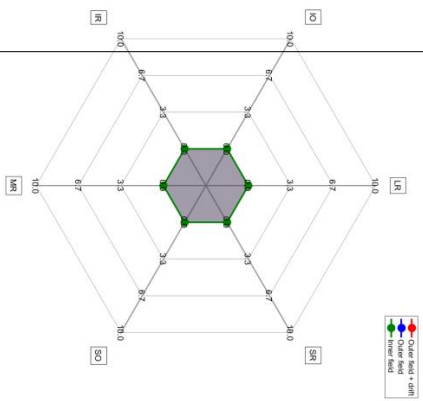


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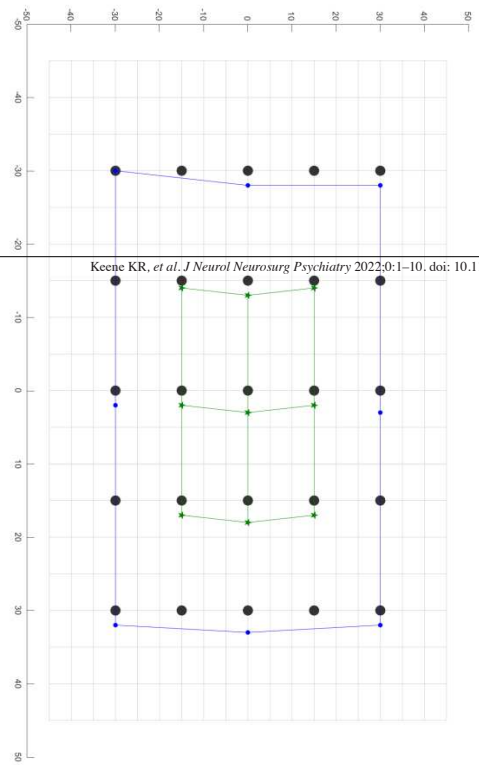
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### Muscles right



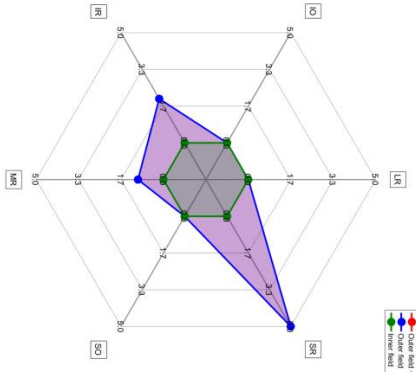
### Hess chart right



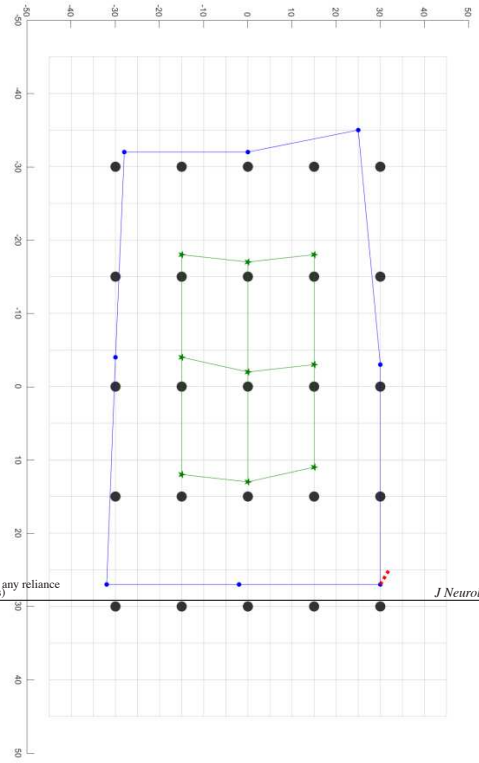
Keene KR, et al. *J Neurol Neurosurg Psychiatry* 2022;0:1–10. doi: 10.1136/jnnp-2022-329859

Patient number 86

### Muscles left



### Hess chart left

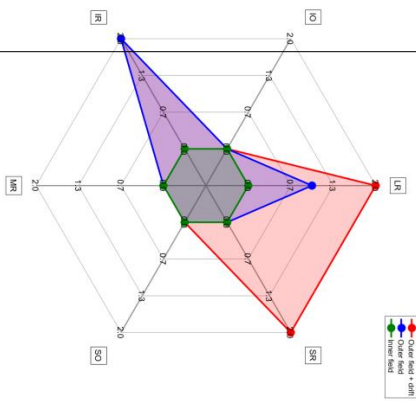


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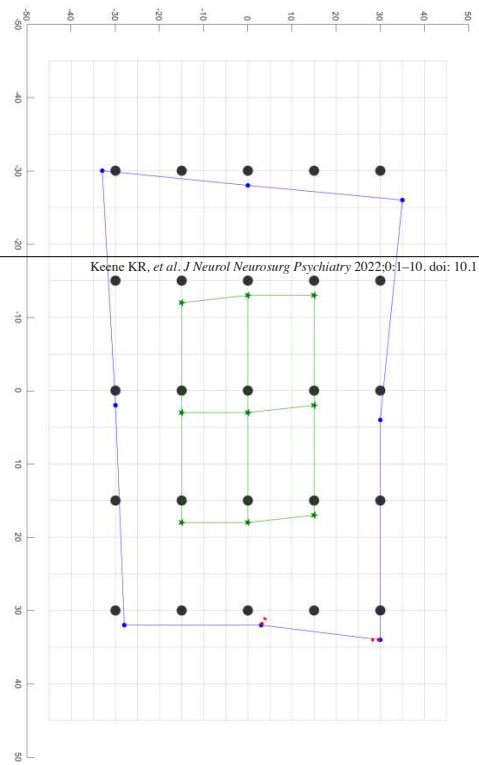
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### Muscles right



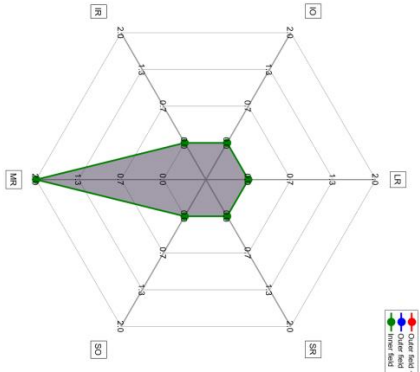
### Hess chart right



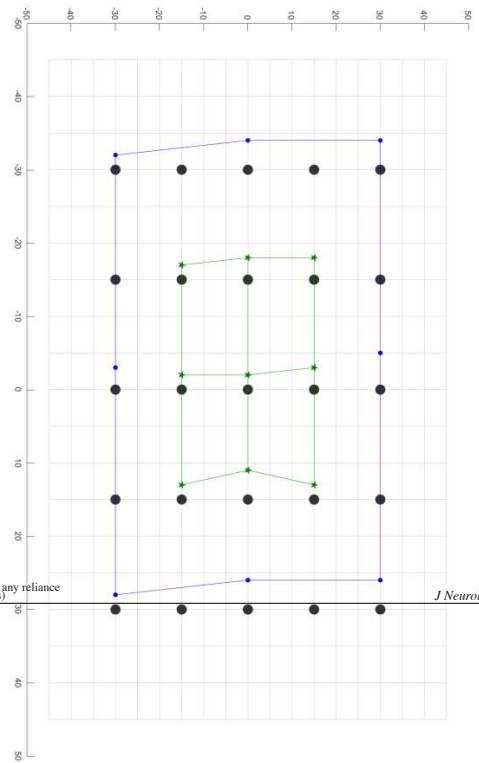
Keene KR, et al. J Neurol Neurosurg Psychiatry 2022;0:1-10. doi: 10.1136/jnnp-2022-329859

Patient number 87

### Muscles left



### Hess chart left

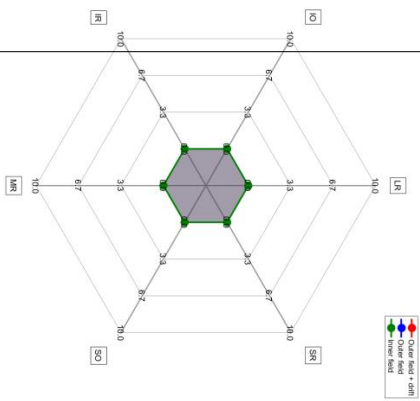


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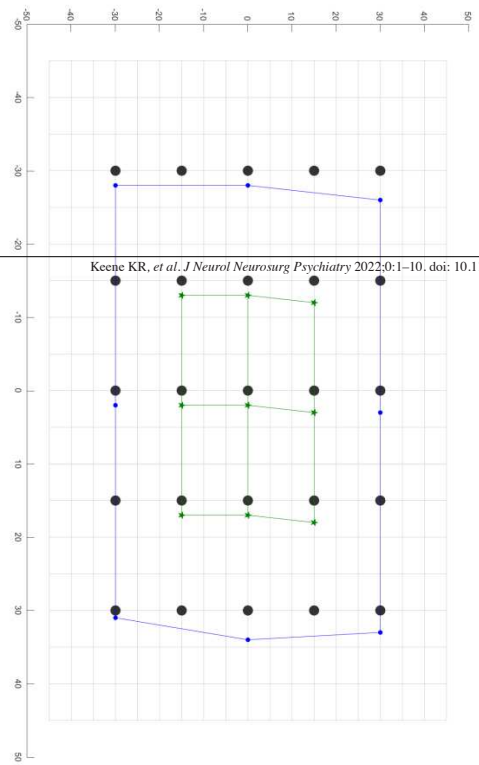
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### Muscles right



### Hess chart right



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Patient number 88