

## Introduction

- The presence of hemispatial neglect is a known complication of stroke that causes a greater functional impairment and burden on the patient.
- Objective measurement of this deficit is an important part of the process of identifying the level of impairment, and being able to then dig deeper for an assessment measure to better realize the level of the deficit.
- This case report comparison of the line cancellation test and the star cancellation test aims to provide insight on how the clinician may tailor their choice of the most appropriate screening tool for neglect.

## Objectives

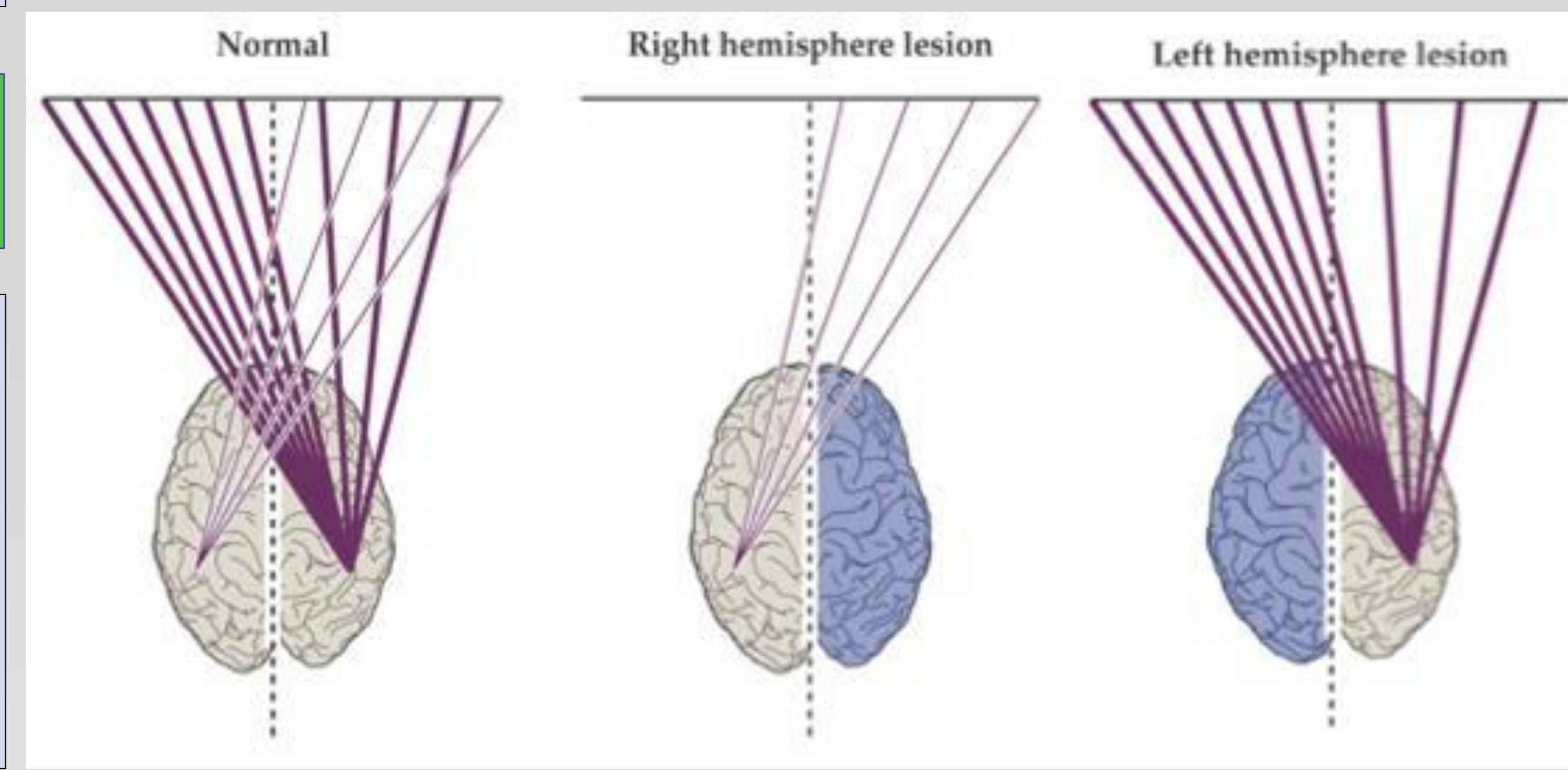
- To obtain a case patient representative of patients that suffer from hemispatial neglect post stroke
- To analyze the history of the case patient, their prior level of function, and how the deficits of hemispatial neglect have effected their function
- To determine if the following outcome measures/screening tools are appropriate to use in the clinic
- To explore other methods of measuring hemispatial neglect and its effects on function

## Case Patient

- middle-aged Croatian male
- R. MCA Embolus
- Received tPA, had an embolectomy
- 6 days later had HemiCraniotomy
- 25 days from stroke to IP rehab
- 26 days s/p stroke - tonic clonic seizure
- Pt previously professional body builder

## Methods

- The case patient completed the 3 different objective measures 2 of which were used primarily in this case report: Star Cancellation Test and Line Cancellation Test (albert's test).
- The tests were completed each once in a seated position and again while standing. It was chosen to perform the tests as such to determine if either method would alter the performance in any way.
- The patient was given a standardized set of directions on how to complete each of the tools just prior to each attempt. The patient worked on the test, and upon completion if the tool was not finished he was asked if he thought there were no more lines or stars to cross off.
- These tests can either be used as screening tools for the presence of neglect, or tests to form the diagnosis of neglect initially.
- Authors either warn against using tests like the Line Cancellation Test for clinical diagnosis as the performance on it may be affected by conditions such as hemianopia, while others mention of how the tool can achieve a firm diagnosis of neglect.
- Samples of Battery Tests or Assessments for neglect include: Catherine Bergego Scale, and Behavioral Inattention Test.



## Results

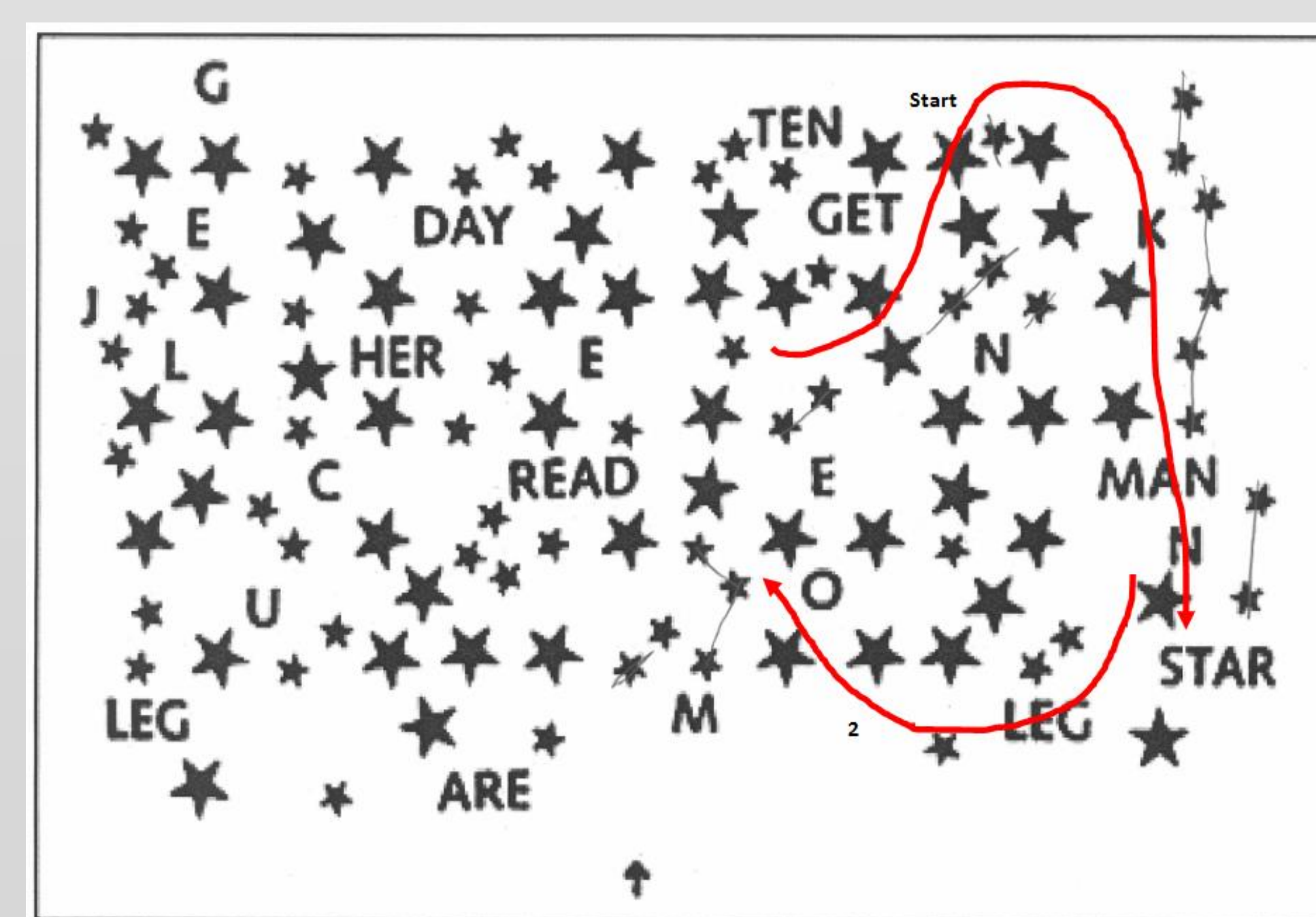
- Star cancellation test: the patient crossed off 28/54 stars seated and 17/54 in the standing position.
  - Line cancellation test: the patient crossed off 26/40 in the seated position and 35/40 in the standing position.
- Different cut-off values exist for the star cancellation test in determining neglect. 44 and 51 or fewer stars are reported by different authors, both of which the patient reaches with ease for classification of neglect.
- For the line cancellation test, indication of neglect is present if more than 70% of the total amount of lines left uncrossed are on the side of the brain lesion or motor deficit. The patient's performance in both sitting and standing, on this test, would not classify him with neglect

## Discussion

- Performance on the star cancellation in standing and sitting is what would be considered typical, however that of the line cancellation is atypical.
- There could be an association between the necessity to concentrate more in the standing position to be safe and effective through his bodybuilding career. Researchers have postulated fitness' effects on adult cognition, would be most readily observed in visuospatial tasks
- In addition neither test was significantly representative of the patients clinical presentation of spatial awareness and three dimensional navigation. Posing further questions on more in depth tests designed at measuring functional deficit resulting from neglect, and not just two dimensional involvement.

### Performed: Seated

#### Star Cancellation



### Performed: Standing

#### Line Cancellation

