

Poster presentation

Right inferior parietal region hypoperfusion as a reflection of anosognosia in dementia

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Background

Anosognosia in patients with dementia may make the patients to behave unsafely and can have an impact on treatment compliance. The aim of this study is to evaluate the correlation of anosognosia in patients with dementia and regional cerebral blood flow (rCBF) in different regions of the brain.

Materials and methods

Seventy three patients in mild or moderate stage of dementia of different types are included in the study. After a clinical interview with the patients and their relatives, the patients were divided into two groups: a) anosognosia consisted of 41 patients (mean age 73±11 y) (mean MMSE 17±5), who were not aware of their disease. b) no anosognosia including 32 patients (mean age 71±8 y) (mean MMSE 23±4), who had full awareness of their disorder. The patients underwent HMPAO single photon emission computed tomography (SPECT) and rCBF was measured using region of interest (ROI) in right and left prefrontal, frontal, superior and inferior parietal, lateral and medial temporal, occipital and Posterior cingulate.

Results

The patients with anosognosia significantly differed from the patients with no anosognosia in rCBF in right ($P<0.034$) and left ($P<0.008$) prefrontal, right inferior parietal ($P<0.002$) and right ($P<0.001$) and left ($P<0.002$) medial temporal cortex and also in MMSE ($P<0.000$).

There was a significant correlation between MMSE and rCBF in right and left prefrontal and medial temporal regions but not the right inferior parietal region.

Conclusions

Anosognosia may reflect functional impairment in these regions specially the right inferior parietal region which seems to be independent of MMSE variable.