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Poster 35

Fatty acid-binding protein 3 in cerebrospinal fluid of hip fracture patients with delirium and of cognitively healthy controls

Bjørn Erik Neerland [1], Kaj Blennow [2], Henrik Zetterberg [2], Leiv Otto Watne [1]
[1] Oslo Delirium Research Group, Department of Geriatric medicine, Oslo University Hospital, Oslo, Norway
[2] Sahlgrenska University Hospital, Mölndal, Sweden

BACKGROUND

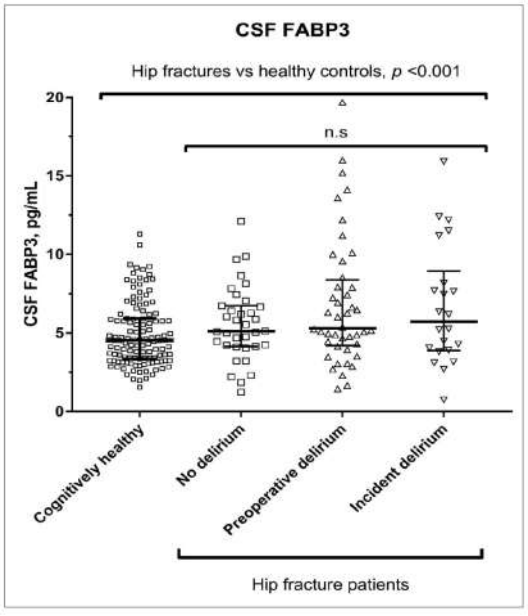
Delirium is associated with dementia and thus biomarkers reflecting neurodegeneration are of interest. Heart-type fatty acid-binding protein 3 (FABP3) is a cytoplasmic protein released following a cellular injury. Levels in cerebrospinal fluid (CSF) are elevated in Alzheimer's disease.

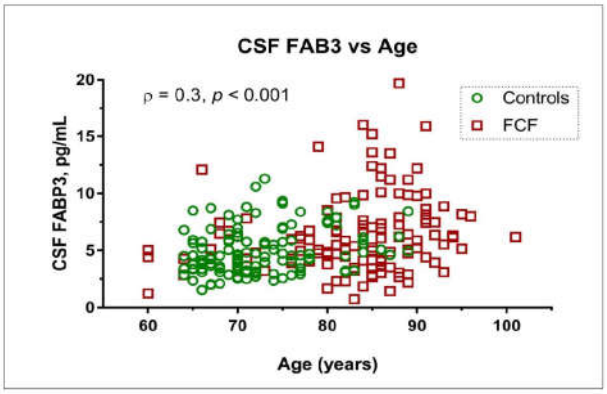
METHODS

- FABP3 was measured in cerebrospinal fluid (CSF)
  - 128 hip fracture patients
  - 124 cognitively normal older adults, elective surgery
- Delirium : Confusion Assessment Method (CAM)
- Dementia diagnosis: consensus in an expert panel
- CSF FABP3 concentration was measured using the Human FABP3 Kit (Meso Scale Discovery).

RESULTS

- CSF FABP3 was elevated in hip-fracture patients compared to cognitively healthy controls (5.7 vs 4.5, p<0.001)
  - After adjustment for age, the association was no longer statistically significant (β= 0.05, p = 0.5)
- No significant differences in CSF FABP3 levels across delirium groups (5.1 vs 5.3 vs 5.8)
- Significant correlations between age and CSF FABP3 (ρ = 0.3, p < 0.001)





	Cognitively healthy controls, n = 128	Hip fracture patients, n = 124
Age, median (IQR)	73 (68-76)	85 (79-89)
Male sex, n (%)	61 (49)	35 (27)
CSF FABP3, median (IQR)	4.5 (3.4-6.1)	5.7 (4.2-7.7)

CONCLUSION

CSF FABP3 in hip fracture patients were high compared to cognitively normal older adults, indicating ongoing neurodegeneration in these patients. There were no differences of CSF FABP3 levels across delirium groups, suggesting that FABP3 may not be directly involved in delirium pathophysiology.

Oslo University Hospital

@beneerland

bjorn.erik@neerland.net

OSLO DELIRIUM RESEARCH GROUP