Awareness and its relation to psychiatric symptoms in early-onset Alzheimer’s disease

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Abstract

Background: Anosognosia in patients with Alzheimer’s disease (AD) appears differently by various conditions such as disease severity or neuropsychiatric symptoms (NPS). However, it remains uncertain how anosognosia is related to disease severity or NPS in early-onset (EO) AD. We investigated the incidence of anosognosia and associating factors especially NPS by disease severity.

Methods: We recruited 616 EOAD patients. We subdivided participants into 3 groups by awareness for disease: full/ partial/ no, and by clinical dementia rating (CDR): 0.5/ 1/ 2. We compared the difference in neuropsychiatric inventory (NPI) according to the degree of awareness and the disease severity.

Results: The percentage of anosognosia steadily increased as CDR worsened (8.6% vs 13.6% vs 26.2%). NPI total score was statistically high in anosognosia patients of CDR 0.5 and 1 group, by contrast, it was not associated with patients with anosognosia in CDR 2 group. Overall, anosognosia patients demonstrated delusion(P=0.015), hallucination(P=0.005), agitation(P=0.001), aberrant motor behavior(P=0.001), sleep(P=0.016), and appetite(P=0.040) statistically high. After stratification of CDR, anosognosia patients showed sleep(P=0.023) and appetite(P=0.025) among CDR 0.5 significantly high while delusion(P=0.035) and hallucination(P=0.049) among CDR 1. In CDR 2, there was no difference among 3 groups by awareness.

Discussion: Anosognosia differs the incidence and associating factors by disease severity in EOAD patients. It is associated with specific NPS in very mild and mild stage rather than moderate stage. It would be recommended to confirm sleep and appetite problems in very mild group, and delusion and hallucination in mild group with anosognosia patients.