

DYSPHAGIA AND AUTONOMIC FUNCTIONS IN ALZHEIMER'S DISEASE

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Aim: The purpose of this study was to investigate oropharyngeal swallowing parameters in Alzheimer's disease (AD) using electrophysiological methods in correlation with autonomic functions.

Method: Forty AD patients, 20 age-matched normal controls (NC) and 20 young NC were included in the study. Dysphagia limit (DL) and sequential water swallowing (SWS) tests were used for evaluation. Cardiac rhythm, respiration and sympathetic skin responses (SSR) were synchronously recorded.

Results: Dysphagia was found in 30/40 (75%) of AD patients and mean DL was 16.5±1.01mL in AD group where it was 25mL in control subjects. Cardiac rhythm was found to be accelerated during swallowing apnea in all groups. Mean swallowing times were 8,41s, 6,22s and 5,50s, and swallowing apnea times were 8.82s, 6.3s, and 5.57s, in AD, old NC and young NC, respectively (p<0.05). During swallowing, triggered SSR occurred in 95% of subjects in both of NC groups, and only in 55% of AD patients.

Conclusions: Although without any complaint about swallowing, AD patients were found have dysphagia in electrophysiological studies. In the elderly, some electrophysiological changes were found to occur during swallowing when compared to young people. Swallowing time was found to be prolonged in elderly but much more prolonged in AD. Swallowing triggered SSR was also found to be disturbed in almost half of AD patients.