Primary progressive apraxia of speech: Neurologic and Neuroimaging correlates

E. Strand, J. Duffy, K. Josephs, J. Whitwell

Retrospective research has shown that progressive apraxia of speech can be the earliest and sometimes only manifestation of degenerative neurologic disease. The presence of neurodegenerative AOS has also been suggested as a predictor of neurologic diagnosis and even neuropathology. This paper reports data from a larger prospective study, designed to expand on earlier retrospective work. The purpose of the paper is to describe the characteristics of PAS, specifically related to: 1) the frequency and prominence of a number of its associated speech characteristics; 2) the locus of abnormalities on MRI and PET; and 3) the clinical findings during neurologic assessment. Twelve participants with PAS and no evidence of aphasia underwent comprehensive neurologic, cognitive, speech and language assessment, as well as MRI and PET imaging. The 12 participants with PAS were similar with respect to neurologic exam and neuroimaging, but were slightly variable as to the presence and severity of oral apraxia, dysarthria, and specific speech characteristics. Discussion focuses on these similarities and differences and the implications for differential diagnosis of PAS in neurodegenerative disease.