

Dysarthria profiles in hereditary ataxia

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The dysarthrias associated with hereditary ataxias are poorly understood. Ataxic dysarthria, even in its purest form, can manifest in highly variable ways. This heterogeneity is magnified in the hereditary ataxias, which can present as a mixed dysarthria, often ataxic-spastic or ataxic-flaccid. Emerging evidence suggests that the variability of ataxic dysarthria may be explained by patterns of motor control reflecting instability versus inflexibility (Hartelius et al., 2000; Spencer & France, 2016). An alternative theory is that deviant speech characteristics cluster according to differential subsystem involvement (Joanette & Dudley, 1980; Ebert et al., 1995). The present study tested these theories in eight speakers with dysarthria from hereditary ataxia. Four dysarthria experts listened to speech samples of adults with spinocerebellar ataxia and completed severity ratings, and visual analogue scale ratings, of the speech features. Results suggested that five speakers fit the pattern of instability, two speakers aligned with inflexibility, and one speaker had a mixed presentation. Patterns did not emerge according to speech subsystem involvement. Findings are similar to speakers with dysarthria from sporadic ataxia (Spencer & France, 2016) and have implications for clinical and research practice.