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Overrepresentation of isolated verbal repetition deficits in aphasic males with stroke: A systematic literature review and meta-analysis (P4.211)

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Abstract

Objective: To ascertain whether gender dimorphism in language networks correlates with aphasia phenotype and recovery. If so, men with aphasia would be more likely to have persistent repetition impairments than women, and chronic conduction aphasia (CA) might be more prevalent in men than in women.

Background: The arcuate fasciculus (AF) is a key component of the language network involved in verbal repetition. Strong left lateralization of the AF is more frequent in men (□85%), while mild lateralization or symmetrical bilateral representation (□60%) is more prevalent among females.

Design/Methods: Systematic review and meta-analysis of published cases of CA and transcortical aphasia (TA). Inclusion criteria: first single unilateral cerebrovascular event; age ≥ 18 years old; no prior history of neurological or psychiatric disease, nor any other general medical condition that could impair language. The male:female proportion CA and TA was calculated from the database, and compared with male:female proportion in stroke prevalence.

Results: Two hundred fifty three publications were included, gathering 799 cases of CA and TA. Males accounted for 74% (n=375) of CA subjects (n=507), while among TA (n=249, mixed TA excluded) men represented 62% (n=154) of subjects. Compared with 59% of male prevalence in stroke, men were overrepresented among CA (p<0.0001, 95% CI 68.91 to 76.82) while not in the control group (TA with exclusion of mixed TA, p=0.2848, 95% CI 55.50 to 67.91).

Conclusions: Chronic isolated repetition deficits are more prevalent in men than in women. This finding is clinically relevant because of repetition's role in language acquisition and recovery, being a main mechanism by which children learn to speak and a major resource in language rehabilitation techniques.

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Disputes & Debates: Rapid online correspondence

No comments have been published for this article.

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