Reductions in 'Ross Information Processing Test-Geriatric' information processing and 'A Quick Test of Cognitive Speed' processing speed in Alzheimer's disease: which lead and which follow?

Brief research reports


Abstract:
Our objective was to obtain preliminary evidence for an order of emergence of measurable reductions in cognitive-linguistic abilities and processing/naming speed. A total of 22 patients with mild-to-moderate Alzheimer's disease (AD) or mild cognitive impairment and 22 age- and sex-matched controls participated. Ross Information Processing Test-Geriatric (RIPA-G) evaluated functional information processing and A Quick Test of Cognitive Speed (AQT) measured naming speed (s) for familiar single-dimension (e.g. colors, forms) and dual-dimension (e.g. color-form combinations) visual stimuli. Patient age was not a significant factor. Means for RIPA-G information processing were in the normal range. AQT means for most perceptual-speed (e.g. form naming) and all cognitive-speed measures (e.g. color-form naming) were in the atypical/pathological range. Correlations between information processing and processing speed were moderate, negative and mostly nonsignificant. RIPA-G memory and organization identified that about a third of patients performed below the normal range. AQT dual-dimension naming identified that all 19 patients with mild-to-moderate AD performed in the atypical range (i.e. slower than +2 SD of the mean). The findings provide preliminary evidence that reductions in perceptual and cognitive speed precede reductions in cognitive-linguistic abilities and functional information processing in mild-to-moderate AD. AQT can assess short-term changes in cognitive functioning and monitor intervention. RIPA-G can provide broad-based functional measures at baseline and over the longer term. The combined use of AQT and RIPA-G can provide health professionals with broadly based clinical information, relevant for making team-based rehabilitation, living and other decisions for patients with AD.

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