

Why the semantic dementia syndrome should not become obsolete

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Since earlier descriptions of semantic dementia syndrome (SD) with its two phenotypes depending on left or right predominant side of atrophy (Left-SD or Right-SD), several researchers have argued for separating them into two distinct entities with their own features and evolution : semantic-variant of primary progressive aphasia and right-temporal-variant of frontotemporal dementia.

To fuel this debate, we retrospectively selected 38 patients from our large SD cohort, presenting available data at diagnosis and two-year-follow-up on general semantic knowledge (naming, semantic sorting and matching tasks), famous people knowledge (people familiarity-decision/specific-knowledge questionnaire) and behavioral disruptions assessed by caregivers. On such semantic and behavioral data, we compared the profiles of decline of 29 Left-SD versus 9 Right-SD patients.

Except for their initial quantified sided-atrophy, the two groups did not differ in terms of age at diagnosis, level of education, gender and general cognitive functioning. When general semantic tasks encompassed two input-versions (words vs pictures), an expected interaction between group and input was reported, with the Left-SD group showing more pronounced deficit on word-version. We found no other differences between groups, even when comparing their degree of semantic and behavioural declines between the two times of assessment.

We concluded that the patients initially categorized as Left-SD or Right-SD exhibited similar patterns of decline on semantic knowledge as well as on behavioral aspects. Such findings were in favor of the “two-phenotypes” rather than the “two-distinct-entities” account, and are not an argument for separating them where educational programs, support groups and counseling can be offered.

Conflicts of interest

none