

Progression of Bipolar Disease to Frontal Dementia: A Systematic Review and Provisional Research Criteria

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Background. A subset of patients with bipolar disorder (BD) develop a midlife cognitive decline that overlaps with the features of behavioral variant Frontotemporal Dementia (bvFTD). The key clinical features of this population have not yet been defined.

Methods. To characterize the clinical features and course in patients with BD, comparing patients with typical BD (developing before age 40) and late-onset BD (LOBD) (developing after age 40) who develop dementia with frontal features. A systematic review identifying all reports of patients with BD who developed dementia with frontal features was conducted.

Results. Seventeen articles met the inclusion criteria of which 53 patients met the inclusion criteria; 31 patients had typical BD and 20 had LOBD. Three different phenotypes of dementia were observed. Forty-one percent with typical BD developed features that met the criteria for bvFTD, seven percent had a course consistent with bvFTD phenocopy, while 51% developed a BD-frontal dementia that is not codified in any diagnostic criteria. Most patients with LOBD met criteria for bvFTD (60%) or bvFTD phenocopy syndrome (30%) (X^2 10.6, $p=0.005$). The BD-frontal type of dementia, mainly seen in association with typical BD, was characterized by very slow progression and frontal cognitive and behavioral dysfunction not meeting the criteria for possible bvFTD.

Conclusions. Three different dementia phenotypes, bvFTD, bvFTD phenocopy, and a slowly progressive frontal type dementia were detected in patients with a history of typical BD and LOBD. Provisional diagnostic criteria for the BD frontal-type dementia are proposed to facilitate case identification and future research.

Conflicts of interest

None