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Differences in sex distribution between genetic and sporadic FTD

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Abstract

Background: The reported sex distribution differs between frontotemporal dementia (FTD) cohorts. Possible explanations are the evolving clinical criteria of FTD and its subtypes and the discovery of FTD causal genetic mutations that have resulted in variable findings. Our aim was to determine the sex distribution in a large international retrospective cohort of sporadic and genetic FTD.

Method: We included patients with probable and definite behavioural variant frontotemporal dementia (bvFTD), non-fluent variant primary progressive aphasia (nfvPPA), semantic variant primary progressive aphasia (svPPA) and right temporal variant frontotemporal dementia (rtvFTD) from the Amsterdam Dementia Cohort, the Montreal Neurological Institute Cohort, the University of Ulm and Technical University of Munich Cohort (part of the German Consortium of Frontotemporal Lobal Degeneration), the Policlinico Milan Cohort and the Sydney FRONTIER Cohort. We compared sex distribution between genetic and sporadic FTD using χ^2 tests.

Result: A total of 910 subjects were included (56.3% male), of whom 654 had bvFTD, 99 nfvPPA, 117 svPPA and 40 rtvFTD. Of these, 215 had genetic FTD and the sex distribution was equal (51.2% male), which did not differ significantly from sporadic FTD (57.8% male, χ^2 p=0.081). In the sporadic bvFTD subgroup, we found a male predominance (61.6% males compared to 52.9% males in the bvFTD genetic group, χ^2 p=0.04). No sex distribution differences between sporadic and genetic cases were found in the other clinical FTD subgroups (all p>0.05).

Conclusion: Differences in sex distribution between genetic and sporadic behavioural variant of FTD may provide important clues for its differential pathogenesis and warrants further research.