Frontotemporal dementia in late life

Prevalence, risk factors and mortality

Akademisk avhandling

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av Thorsteinn B. Gislason

Fakultetsopponent
Professor Florence Pasquier
Centre Hospitalier Regionale et Universitaire de Lille

Avhandlingen baseras på följande delarbeten:

I. Thorsteinn B. Gislason, Magnus Sjögren, Lena Larsson, Ingmar Skoog
The prevalence of frontal variant frontotemporal dementia and the frontal lobe syndrome in a population based sample of 85 year olds
J Neurol Neurosurg Psychiatry 2003;74:867-871

II. Thorsteinn B. Gislason, Svante Östling, Anne Börjesson-Hanson, Magnus Sjögren, Michalea Simoni, Leonardo Pantoni, Ingmar Skoog
Effect of diagnostic criteria on prevalence of frontotemporal dementia in the elderly
Alzheimers Dement 2015;11:425-433

III. Thorsteinn B. Gislason, Svante Östling, Xinxin Guo, Anne Börjesson-Hanson, Silke Kern, Ingmar Skoog
Risk factors for late-life frontotemporal dementia: A nested case-control study
In manuscript

IV. Thorsteinn B. Gislason, Svante Östling, Xinxin Guo, Robert Sigström, Silke Kern, Ingmar Skoog
A population study on mortality in late-life frontotemporal dementia
In manuscript

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Aims: The overall aim of this thesis was to increase knowledge about late-life behavior variant frontotemporal dementia (bvFTD). One aim was to estimate the prevalence of bvFTD among older adults and to determine the agreement between different bvFTD criteria. Further aims were to study the correlation between bvFTD and frontal lobe atrophy (on CT) and to explore non-genetic risk factors and mortality in bvFTD among older adults.

Methods: Population-based samples of 70 to 95-year-olds (N=2404) from Gothenburg, Sweden, underwent neuropsychiatric examinations and key informant interviews performed by neuropsychiatrists or psychiatric research nurses in 1986-2001. A subset (n=1074) underwent CT of the brain. BvFTD was diagnosed according to the International bvFTD Criteria Consortium (FTDC) and according to two other bvFTD criteria sets (FTLD-CC and LMRC). An exploratory nested case- control study examined potential risk factors among bvFTD cases, one control group without dementia and one with non-FTD dementia according to DSM-III-R. Mortality associated with bvFTD was compared to mortality among comparison groups with non-FTD dementia (DSM-III-R) and no dementia.

Results: The prevalence of bvFTD varied between 0.2-0.5% at age 70-79, between 2.5-3.6% at age 80-89, and between 1.7-2.2% at age 90-95. To a large extent, different FTD criteria captured different individuals. Among those with bvFTD, 80% had frontal lobe atrophy on CT, compared to 9% of those without bvFTD. Alcohol abuse, stroke/TIA, head trauma, hypothyroidism, severe white matter lesions and being divorced were associated with increased odds of bvFTD. A diagnosis of bvFTD was associated with higher risk of death than a diagnosis of non-FTD dementias, especially among the oldest old.

Conclusions: The findings suggest that bvFTD is more prevalent among older adults than previously supposed. The findings on risk factors have implications for future studies into the etiology of bvFTD, and ultimately, for prevention. Finally, it is important that clinicians are aware of this diagnosis among older adults, as it associated with a more aggressive course than other late-life dementias.

Keywords: Frontotemporal dementia, older adults, prevalence, risk factor, mortality

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