DEMENTIA

Criminality can be an early sign of frontotemporal dementia

A new study suggests that criminal behaviour can be an early symptom of behavioural variant frontotemporal dementia (bvFTD). The results also show that the types of crime committed by people with different forms of dementia reflect the distinct patterns of pathophysiology in each disorder, which underscores the real-world implications of cognitive dysfunction.

Behavioural change is an early sign of many neurological disorders, and in dementias that affect brain areas linked to inhibition and judgement, changes can take the form of inappropriate or criminal actions. “Our division chief, Dr Bruce Miller, has noticed that some patients with bvFTD sometimes have disinhibited and compulsive behaviours that can lead to altercations with the law,” says study author Georges Naasan. “We therefore decided to look at this more closely, both in bvFTD and other neurodegenerative diseases, in a systematic way with a large cohort of patients.”

The investigators conducted a retrospective analysis of records from 2,397 patients seen by their clinic, looking for evidence of behaviours that could be considered illegal. The search included keywords that referred to dangerous driving, sexual harassment, theft, violence and other crimes, as well as more general terms like ‘arrest’, ‘police’ and ‘jail’.

Medical notes suggestive of criminal behaviour were found for 204 patients (8.5%), and the most frequent diagnoses in this group were bvFTD, semantic variant primary progressive aphasia, Alzheimer disease (AD) and Huntington disease (HD). The research team then calculated the rate of criminality per diagnostic group by comparing the numbers of patients who did and did not have evidence of illegal acts.

“We found that more than a third of patients (37%) with bvFTD displayed criminal behaviours,” reports Naasan. “We also found that 27% of patients with semantic variant primary progressive aphasia, and 20% of patients with HD had such behaviours at one point during their illnesses.” Patients with AD were the least likely (<8%) to have behaviours considered as criminal.

The investigators also conducted qualitative analyses of the medical notes, which revealed different types of crime associated with different disorders. For example, patients with bvFTD were more likely to exhibit impulsive and inappropriate behaviour, such as public urination or making sexual advances towards strangers. By contrast, crimes observed in patients with AD could usually be explained by memory problems or disorientation, such as not paying for items before leaving a shop.

Naasan points out that 14% of patients with bvFTD were first referred for diagnosis because of criminal behaviour, which raises important considerations for the early detection of this disease. “Some first-time offenders who are in middle-aged adulthood or elderly may benefit from an evaluation for neurological disease,” Naasan notes. “Ideally, if offenders are identified as having a neurological disease, they could be channelled to the appropriate treatment or palliative agencies.”

In many jurisdictions, culpability for crimes is contingent on a person’s capacity to assert right from wrong, and to act accordingly. Further study of criminality in the early stages of dementia is essential, because the impact of these results might extend beyond the clinic and into the courtroom.

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