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Lewy bodies

How common is dementia with Lewy bodies?

R A Barker, T Foltynie

Meeting consensus criteria for the diagnosis of DLB

Establishing frequency figures for diseases for which there is no reliable biomarker during life is particularly difficult. As a result, various diagnostic criteria have been established to improve the accuracy of clinical diagnoses for the neurodegenerative disorders, based on the previous evidence of clinicopathological studies of defined pathologies. Such consensus clinical criteria are invaluable for increasing the specificity and precision of diagnoses, although with increasing specificity comes an inevitable loss of sensitivity, such that some cases get overlooked.

In this issue (see pp 720–724) Rahkonen *et al* have attempted to define the prevalence of dementia with Lewy bodies (DLB) in people over the age of 75 using a population based approach, in the Finnish city of Kuopio.[1] This study randomly selects 700 out of 4518 people born before 1923, and uses a structured questionnaire and clinical examination to identify individuals with dementia and meeting consensus criteria for the diagnosis of DLB. About a quarter of the group had dementia, of which a further quarter were thought to have DLB (5% of overall 75+ population), a figure that was half that seen for dementia of the Alzheimer's type (DAT), but similar to that seen for vascular dementia. This finding is higher than that reported in other similar studies,[2 3] but does support the fact that DLB is a common cause of dementia in the elderly, after DAT. The reason for the present study finding a markedly higher prevalence may relate to the inclusion of younger individuals in the previous studies. There is a paucity of population based descriptive studies of DLB, and therefore the age specific results from this study are welcome, and must be compared with results from future studies in other populations and age groups.

It is clear that the clinical diagnosis of DLB is relatively common in this population, but it may be even more prevalent given that the consensus criteria used by McKeith *et al* have a relative low sensitivity for diagnosing this disease.[4] The definition of dementia in this study was also based on consensus criteria together with the Mini-Mental State Examination scores, but with no systematic exclusion of other medical problems, using imaging or blood tests. Neuropathological confirmation of disease would obviously be useful, however the distinction between DLB and dementia in Parkinson's disease remains contentious,[5] and so even if this study included postmortem analysis of the brains, issues of disease classification would remain. Indeed, the increased sensitivity to detect Lewy bodies using alpha-synuclein immunohistochemistry (which post dates the original consensus criteria of McKeith *et al*[4]) creates uncertainty even at postmortem.

Prevalence studies must balance the conflict that arises between (a) assessing large populations, thus enabling identification of larger numbers of affected patients, and (b) performing detailed evaluations or investigations of all identified individuals using qualified experts or trained personnel. With large population denominators, detailed assessments become impossible, and either screening tools or random sampling must be used, as has been done in the selection of the 700 individuals studied in this paper.

There is always some concern that patients who refuse participation in descriptive studies may have differing rates of disease from those who do participate, which may result in less precise prevalence estimates being made. Unfortunately it seems that other sources of clinical data regarding patients refusing participation are absent in this study, thus preventing any form of sensitivity analysis.

Nevertheless, this study does highlight the advantage of targeting specific populations of people at highest risk of disease from which to estimate disease frequency. Using community based samples with a defined population denominator allows accurate identification of both incidence and prevalence figures. Clinic based series have inevitable biases in patient ascertainment, with ill defined population denominators and no means of quantifying missing cases. It is now important that other investigators delineate age specific community based figures for this condition in their populations.

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NEUROLOGICAL STAMP

Félix Guyon 1831–1920

Guyon was a native of the Island of Réunion. He emigrated to France, studied medicine in Paris, and became a surgeon at Hôpital Necker and professor of genitourinary surgery in Paris. Guyon was an outstanding urologist and a pioneer in prostatectomy and cystoscopy.

In 1861 Guyon presented a paper on the hand to the Anatomical Society in Paris. This was published in the bulletin of the society, entitled "A note of an anatomical arrangement specific to the anterior aspect of the wrist not previously described"[1] Given the date of the publication and the initial of the author, one can only conclude that this was Félix Guyon of urological fame. In his paper Guyon describes "une petite loge intra-aponévrotique". The groove or tunnel formed between the pisiform and the hamate and ligaments is now eponymously known as Guyon's canal and the findings associated with ulnar nerve entrapment at this site Guyon's syndrome. In 1979 Guyon was honoured on a stamp issued by France on the occasion of the 18th Congress of International Society of Urologists, in Paris. He is portrayed with catheters (Stanley Gibbons no 2323, Scott no 1652.) Réunion also issued his stamp, but it was never sold.

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