Predicting dementia or diagnosing early stages of Alzheimer's disease? How the hippocampal volume and the Clinical Dementia Rating-SB can help early diagnosis

Predição de demência ou diagnóstico de estágio inicial de doença de Alzheimer? Como o volume hipocampal e o Clínical Dementia Rating-SB podem ajudar no diagnóstico precoce

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Dementia is a devastating age-associated syndrome which is highly prevalent among the elderly. It is an increasing problem with regard to public health costs and the use of services, therefore demanding a great public and family organization and planning, from chronic caregiving to long term institutionalization.

Planning for treating dementia, especially Alzheimer's disease (AD) — its most frequent cause — brings serious challenges and demands several measures, which begin with a proper and early diagnosis. Also, empirical studies on the normal aging process and on cognitive alterations in its various domains in preclinical phases of dementia are still necessary[1]. Recently, a new set of diagnostic criteria have been issued aiming at establishing AD diagnosis as early as possible, even at preclinical phases of the disease[2-4]. Some of the procedures are still expensive, such as cerebrospinal fluid amyloid, phosphate measures, as well as functional magnetic resonance for the pre-clinical stages of the disease.

The study carried out by Borgio et al. in this issue raises a relevant clinical question, already analyzed by several Brazilian colleagues[5-7]. There is the need not only to improve the early diagnosis, but also to develop safe procedures to predict the conversion to dementia in patients with mild cognitive impairment as well. This is still a matter of debate, but it is true that simple and straightforward procedures must be developed in order to achieve an accurate result with less expensive and time consuming actions. The study shows that using the Clinical Dementia Rating-SB (CDR-SB) and the measurements of hippocampal volume at the baseline it is possible to predict dementia after a two-year follow-up. This is in accordance with evidence gathered in the past in nursing homes and in community studies, which have shown that CDR may be used solely to ascertain dementia, and that is a valid tool to replace the dementia work up[9,10] .

The question remains: should those patients with mild cognitive impairment (MCI) who developed to dementia be seen as a different group in relation to those who have not necessarily evolved to dementia, or should they all be part of a group of pre-clinical dementia in AD or other types of dementia as time goes by? As a matter of fact, mild cognitive impairment of Alzheimer´s disease is a proposed diagnosis according to the most recent studies[4]. Also, there is a higher conversion rate from MCI to dementia in relation to the longer duration of time of observation and follow-up. Nevertheless, and this is rightfully noted by the authors, the correct appraisal of CDR results may gather sufficient evidence of early signs of dementia and a proper diagnosis, just by using this simple tool. This is essential to establish good practices for the primary care screening of cognitive disorders among the elderly. Eventually, the diagnosis of early stage or pre-clinical dementia may lead to better care of patients and reasonable planning for costs and organization of services in this field. Once again, this study points to the establishment of risk groups as a major care target before they develop dementia, which must be viewed as a later phase of the basic disease, mainly AD.

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