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EDITORIAL

Behavioural symptoms in Alzheimer's disease: validity of targets and present treatments

Behavioural symptoms occur in at least 50% of outpatients treated at a dementia clinic and their frequency may be even higher in nursing homes [1]. Physical aggression and delusions, wandering, agitation, sleep problems and anxiety are among the most important problems. They can result in emotional suffering for patients and caregivers, excess disability and mortality, premature institutionalization, and increased financial costs [2].

Behavioural and psychological symptoms of dementia

'Behavioural and psychological symptoms of dementia' is a recently coined term to describe this heterogeneous range of non-cognitive symptoms occurring in people with dementia of any aetiology [2]. Many of the behavioural and psychological symptoms may form a distinct syndrome that occurs after the onset of symptoms of dementia, lasts 1 month or more and does not include delirium or cognitive and affective changes [3]. A prerequisite for the treatment of behavioural and psychological symptoms of dementia is its recognition as a target for specific therapy in clearly defined patients.

Although the concept is convenient and unifying from a therapeutic point of view, the various symptoms included in this entity may be related to different and multiple neurochemical mechanisms and neuropathological changes [4, 5]. Moreover, a range of psychosocial factors (personality and environmental) may be involved separately or in combination in the same patient.

Treatment approaches

While considerable scientific investment has been made in developing pharmacological treatment targeting cognitive impairment and memory deficits in particular, much less attention has been paid to the treatment of behavioural symptoms occurring in most Alzheimer's patients.

Antipsychotic neuroleptics are the most commonly used medications for the treatment of psychotic symptoms in Alzheimer's disease. Although many antipsychotics and antidepressants are available to treat behavioural symptoms in Alzheimer's disease, none of these drugs has been approved specifically for this purpose. Nonetheless, physicians prescribe such medications despite a dearth of controlled published studies supporting their use. A meta-analysis of the available placebo-controlled trials by Schneider *et al.* [6] found that the use of these drugs produced only modest effect and that no single antipsychotic medication had greater efficacy than any others. However, more recent data have shown a significant effect in reducing behavioural disturbances [7, 8]. Side effect profiles and co-morbidities must also be considered when prescribing these drugs.

Several studies have shown that cholinesterase inhibitors also reduce behavioural and psychological symptoms, including agitation, apathy, anxiety, pacing and visual hallucinations [9, 10]. The advantage of using a single drug for both cognitive and behavioural symptoms is obvious. These results suggest a relationship between cognition and behaviour as a common mechanism of action of the drug. These drugs may not only be effective for Alzheimer's disease but also for behavioural treatment of dementia with Lewy bodies which includes fluctuating cognitive impairment and marked visual hallucinations that correlate with reduced neocortical cholinergic activity [11, 12].

Non-pharmacological intervention is an important part of dementia care. Few controlled trials have been published on the effectiveness of non-pharmacological strategies [13, 14] and further studies, such as the one published by Gormley *et al.* in this issue of *Age and Ageing* [15], are clearly needed. Behavioural and psychological symptoms have an effect on institutionalization rates and costs and on the quality of life of patients and caregivers. However, because of its heterogeneity, behavioural and psychological symptoms of dementia may not be an appropriate target for a selective therapeutic claim. Research aimed at identifying neurochemical and neuropathological correlates of behavioural patterns should lead to an improved understanding of specific behavioural disturbances in dementia and a better identification of valid targets for both pharmacological treatment and non-pharmacological intervention.

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