Studying delirium

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We have a number of concerns regarding the recent study by Martin G. Cole and associates[1] of multidisciplinary care in patients with delirium.

Delirium represents a change in cognition or the development of a perceptual disturbance that is not better accounted for by a pre-existing, established or evolving dementia.[2] However, given that between 60% and 70% of the patients in both the intervention and usual care groups had suspected dementia, it is difficult to interpret the results of the study. It is also unclear why improvement was measured in terms of Mini-Mental Status Exam (MMSE) scores. The MMSE was not developed as a means of rating delirium; a more appropriate scale for this purpose would be the Delirium Rating Scale.[3] The authors indicated that the rates of compliance with the recommendations of a geriatric specialist were "relatively high," but Rockwood,[4] commenting on this study in the same issue of *CMAJ*, noted that "27% of recommendations on medication and 31% of recommendations on investigations were not followed." This is particularly disconcerting given that delirium in the medically ill is associated with higher mortality rates.[5] Also, patients with an untreated medical disorder (e.g., a urinary tract infection) remain delirious despite receiving a "nursing intervention."

The primary treatment for the symptoms of delirium is pharmacologic, including neuroleptic medication.[6] Evidence for the efficacy of antipsychotic medication has been shown in a randomized, double-blind, comparison trial.[7] However, Cole and associates did not indicate what medications were given to either the intervention group or the usual care group.

The results of this study should not alter the current management of delirium, which includes reversing the underlying cause and treating agitation, psychosis and insomnia with appropriate medication.[8,9]

References

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[Two of the authors respond:]

Stephen Anderson and Robert Hewko have raised 5 important issues, to which we have the following responses.

First, in our study[1] we included patients with delirium superimposed on dementia because dementia is the most common risk factor for delirium in elderly hospital patients[2] and because most elderly hospital patients with delirium also have dementia.[3] In our subgroup analysis, patients with delirium alone appeared to benefit more from the intervention, although this effect was not statistically significant.

Second, we used the change in the MMSE score as our primary outcome measure because it is a reliable, valid, reasonably responsive and widely used measure of cognitive impairment, a core feature of delirium. Analysis of our secondary outcome measures (reported on page 757 of the article), the Delirium Index score (a measure of the severity of 7 delirium symptoms)[4] and the Barthel Index score (a measure of basic self-care activities),[5] yielded similar results.

Third, we reported the results of our process of care analysis on the *CMAJ* Web site (as noted on page 755). Of course we are concerned that compliance with recommendations was not 100%. However, the rate of compliance with the consultants' recommendations in our study (about 70% for recommendations related to medications and investigations) was much higher than corresponding rates of compliance reported elsewhere.[6,7] We attribute this modest success to the work of the intervention nurse, who encouraged compliance.

Fourth, the pharmacologic treatment of symptoms of hyperactive delirium may involve the use of antipsychotic medication.[8] However, there is no evidence that antipsychotics are useful in patients with hypoactive delirium.[8] Our geriatric specialist consultants made a mean of 6 management recommendations per patient, including the appropriate use of medication. Antipsychotic medication was prescribed for 47% of patients in the intervention group and only 24% of those in the control group.

Finally, we agree with Anderson and Hewko that our results should not alter current best management of delirium in elderly medical inpatients.[8] Unfortunately, current best management means that in most elderly patients with delirium the condition goes undetected, and only half recover.[8,9] Surely there should be continuing efforts to improve the treatment and outcomes of these patients.[10]

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