
To the Editor:

Shi and colleagues1 have published a useful review of delirium occurring within 10 days of admission of ischemic stroke, intracerebral hematoma, subarachnoid hemorrhage, or transient ischemic attack. As a former stroke physician for 12 years who has since worked with dementia and delirium for 15 years and is pursuing a PhD in delirium in older persons, I have a number of comments.

Stroke is an extremely common disease. To find only 10 studies with 2004 patients meeting inclusion criteria is very surprising. I would have expected >10 000. This suggests that delirium has been given a very low priority in the stroke research community, which is not surprising given that neurology journals seldom publish articles on the topic.

Diagnostic instruments for delirium depend on whether you are a psychiatrist, in which case you use the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV), or you are a nonpsychiatrist (neurologist or geriatrician), in which case since 1990 you use the Confusion Assessment Method (CAM).2 Only 1 of the 10 articles included in Shi’s analysis is from a psychiatric journal: Melkas.3 The remainder are from neurological,4 geriatric medical,5 or general journals.1 I would therefore expect that at least 8 of the 10 articles used the CAM. In fact, only 4 of 10 used the CAM. Is this because the studies use psychiatrists to adjudicate delirium? The mean prevalence plus incidence of delirium in the 4 CAM studies was 19.4%, versus 25.8% in the 6 studies using DSM and other non-CAM instruments.

I have worked in 6 hospitals in the past 27 years, and in 6 of 6 hospitals, old-age psychiatrists (psychogeriatricians) diagnose delirium in approximately 65% of delirium-free older patients by the CAM who we refer to them for problems such as depression and anxiety. This is largely because of the fact that when psychiatrists detect features of medical illness, such as pneumonia, they assume that features such as confusion, inattention, or hallucinations must be caused by delirium rather than by dementia or psychosis.

To illustrate how on rare occasions a psychiatrist using the CAM finds 6-fold less delirium than does a psychiatrist using the International Classification of Diseases or DSM, read the interesting articles by Watkin and colleagues3; they found 12.5% prevalence of delirium in older persons with the CAM. Gover and colleagues5 using ICD found delirium in 65.6% of older persons.

If a community dwelling person has a stroke and then develops delirium, the latter symptom is probably not a priority for a stroke neurologist or stroke physician. The stroke unit may not be adapted for delirium in the way that a geriatric unit specializing in delirium and behavioral and psychological symptoms of dementia would. Hence, discharge to a nursing home after delirium is sometimes a sign that the delirium was not managed in a specialized unit in the same way that acute stroke is managed in a stroke unit. In 2011, I managed 32 patients with delirium by the CAM in an acute care for the elderly unit. Zero of 32 patients died in the hospital, 66% returned home, and 31% entered nursing homes.

Did the 10 studies describe the efforts they took to rule out dementia before stroke? Such methods might include gathering medical records from the primary care physician, neurologist, geriatrician, psychiatrist, and hospital medical records. What efforts were taken to check hospital records for previous admissions for delirium?

Disclosures

None.

Paul Regal, MD, FRACP, FRCPE
Senior Lecturer in Geriatrics
University of Newcastle
Wyong Hospital
Kanwal, New South Wales 2263 Australia
E-mail pregal@nsccahs.health.nsw.gov.au


Key Words: behavioral neurology ■ cognitive impairment ■ cognitive neurology ■ geriatrics ■ delirium
Letter by Regal Regarding Article, "Delirium in Acute Stroke: A Systematic Review and Meta-Analysis"
Paul Regal

*Stroke*. 2012;43:e66; originally published online May 3, 2012; doi: 10.1161/STROKEAHA.112.657692

*Stroke* is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 2012 American Heart Association, Inc. All rights reserved.
Print ISSN: 0039-2499. Online ISSN: 1524-4628

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://stroke.ahajournals.org/content/43/7/e66

**Permissions:** Requests for permissions to reproduce figures, tables, or portions of articles originally published in *Stroke* can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the Permissions and Rights Question and Answer document.

**Reprints:** Information about reprints can be found online at:
http://www.lww.com/reprints

**Subscriptions:** Information about subscribing to *Stroke* is online at:
http://stroke.ahajournals.org/subscriptions/