

LETTER TO THE EDITOR

THE OCCURRENCE OF POST-OPERATIVE DELIRIUM IN BRAZIL

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Delirium, an acute neurobehavioral syndrome associated with disturbances in consciousness and attention, is a commonly presenting complication of the post-operative period in international studies. In a landmark review,¹ the median incidence of postoperative delirium was 36.8%, with advancing age and pre-operative cognitive deficit being uniform findings. Recognition of delirium is vital, as it may be the first manifestation of an underlying condition or medication reaction; increase in hospitalization length, costs, mortality and the progression to dementia are possible outcomes of failing to diagnose this condition.² Since pre-operative, intra-operative and postoperative circumstances may act in concert with personal predisposing characteristics³ to cause delirium, extrapolation of global figures to Brazil is questionable and the determination of local occurrence rates, of paramount importance for the preparation of health teams responsible for the care of such patients.

In an attempt to verify the occurrence of and factors associated with postoperative delirium in relevant Brazilian studies, we systematically searched, up to July 2007, Medline, PsychINFO, Biological Abstracts, Lilacs, Science Direct, ISI/Web of Science and Banco de Teses da CAPES. Search terms used were "post-operative delirium", "delirium", "surgery", combined with "Brazil", "Brasil", and "Portuguese". We followed Dyer et al¹ regarding study selection, and studies could be included if they were primary data collection studies, the population included adults or elderly, delirium was evaluated prospectively and patients evaluated at least three times during the first postoperative week, patients were selected consecutively or randomly and a valid definition of

delirium was employed.

Although we did locate 52 potentially relevant studies, only two fulfilled minimal inclusion criteria. The largest and most rigorous study to date⁴ assessed patients after cardiac surgery, which is consistent with international studies; using DSM-IV criteria, Santos et al. found an incidence of delirium of 33.6% among 220 elderly randomly selected after coronary artery bypass. In the other study, the incidence of delirium, evaluated by the Confusion Assessment Method, was 12.5% in elderly submitted to orthopedic surgery for hip fractures.⁵ Pre-surgical functional impairment was more commonly present in delirium patients. In both studies hospitalization was longer in those affected.

Identification of post-operative delirium is essential in clinical practice. With the exception of coronary artery bypass graft surgery and orthopedic fractures, which are likely to represent a minority of the surgeries performed in our country (6), reliable incidence rates for the commonest surgical interventions performed in Brazil are nonexistent. As such, training of health teams responsible for the detection of this major clinical event is likely to be inadequate, potentially leading to excessive patient morbidity and mortality, as well as increasing overall costs and hospital stays. Studies designed to detect the incidence of and risk factors for postoperative delirium, adequately powered to evaluate a number of variables of interest (e.g. age, pre-surgical cognitive status, type of intervention), with a valid definition of delirium in a population representative of those undergoing surgical procedures in Brazil are greatly needed.

REFERENCES

1. Dyer CB, Ashton CM, Teasdale TA. Postoperative delirium. A review of 80 primary data-collection studies. *Arch Intern Med.* 1995;155:461-5.
2. Wacker P, Nunes PV, Cabrita H, Forlenza OV. Post-operative delirium is associated with poor cognitive outcome and dementia. *Dement Geriatr Cogn Disord.* 2006;21:221-7.

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3. van der Mast RC. Postoperative delirium. *Dement Geriatr Cogn Disord*. 1999;10:401-5.
4. Santos FS, Velasco IT, Fraguas R Jr. Risk factors for delirium in the elderly after coronary artery bypass graft surgery. *Int Psychogeriatr*. 2004;16:175-93.
5. Furlaneto ME, Garcez-Leme LE. Delirium in elderly individuals with hip fracture: causes, incidence, prevalence, and risk factors. *Clinics*. 2006;61:35-40.
6. Barros MB. A incidência de cirurgias na população de Ribeirão Preto, SP, Brasil. *Rev Saude Publica*. 1982;16:268-81.