



Invited Commentary

Commentary on 'Factors Related to Postoperative Delirium in Patients with Lower Limb Ischaemia: A Prospective Cohort Study, Sasajima et al.'

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Delirium is a common postoperative complication with potentially serious adverse outcomes in hospitalised patients. It can lead to increased hospital stay with its associated increased healthcare costs, and is linked to increased mortality and morbidity. It is common in a variety of post-operative settings including orthopaedic surgery, cardiac surgery and vascular surgery. Several studies have previously reported various risk factors for the development of post-operative delirium.¹ Delirium is a diverse and multifactorial disorder with multiple risk factors, which may differ according to the type of surgery and perioperative factors.

In an interim analysis (2000), Sasajima et al.² previously showed that the incidence of post-operative delirium was high (42%) after bypass surgery for chronic limb ischaemia; and identified that the risk factors for development of post-operative delirium was age over 70 years and critical limb ischaemia. In this issue, Sasajima and colleagues expanded on this preliminary study and in their enlarged cohort of 299 patients over an 11 year period (1995–2006), they reported the following five independent risk factors for the development of post-operative delirium: age ≥ 72 years, end-stage renal failure, multiple occlusive lesions, cognitive impairment, and critical limb ischaemia (in order of strength of association). Notwithstanding the fact that this was a non-consecutive cohort, post-operative delirium was common and occurred in about 30% of cases, most of which were hyperactive delirium types, which required extra nursing care.

As the population ages, the number of surgical procedures in the elderly are anticipated to increase. The incidence of post-operative delirium in at risk elderly patients is also likely to increase. Prevention of delirium is obviously advantageous from both patients' and carers' perspectives and identification of patients at

highest risk for post-operative delirium is a potential first crucial step. This present study by Sasajima et al. provides a potential screening tool for which further research can be performed to assess whether interventions for prevention of delirium can be effective in the context of bypass for chronic limb ischaemia. The obvious hope is that identification of these risk factors will lead to preventative strategies and improved patient outcomes.

However, there is a striking lack of research on delirium prevention to guide clinical practice and this is an area of unmet clinical need. There is only a single randomised controlled trial (RCT) that evaluated a programme for "proactive geriatric consultation", which was reported to reduce delirium by over one-third, and reduce severe delirium by over one-half in the context of hip fracture.³ Multi-faceted 'programmes' of delirium prevention (including adequate oxygenation, fluid and electrolyte balance, effective analgesia, rationalisation of polypharmacy, optimal nutrition, early mobilisation and rehabilitation, effective and early treatment of major postoperative complications and appropriate environmental stimuli) need to be assessed whether they can be successfully delivered in the context of bypass surgery.

References

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