Can regional anaesthesia reduce delirium after surgery?

Having a regional anaesthetic to relieve pain after hip fracture surgery might lower the rate of delirium after surgery in elderly patients, according to researchers.

At least half of elderly patients who have an operation may become delirious afterwards, a problem that is linked to a higher rate of dementia and death in the five years after the surgery. Patients who have experienced delirium after an anaesthetic and surgery are three times more likely than other elderly surgical patients to develop dementia within the next five years. They are also twice as likely to die within the following two years.

Delirium is a disturbed mental state that takes two forms: many patients become confused, agitated, distressed and even hallucinatory. This makes them more prone to injuries, such as falls out of bed. Other patients are more difficult to detect because they become quiet and passive, making them reluctant to leave their beds and so more prone to problems such as falls and infections.

Regional anaesthesia, which numbs only the part of the body being operated on, is the theme for this year’s National Anaesthesia Day, which falls on Monday October 17. The day is promoted by the Australian and New Zealand College of Anaesthetists and marks the first time ether anaesthetic was demonstrated in Boston, Massachusetts, 170 years ago.

A regional anaesthetic involves an injection into the nerve bundles that control a particular area of the body; for example, for hand and arm surgery, the injection is into a nerve bundle in the shoulder. Many mothers having caesarean sections have a regional anaesthetic injected into the spine.

The benefits of regional anaesthesia include good pain control, faster recovery, fewer side-effects and less stress on the body.

Anaesthetist Dr Tin Chiu of Auckland Hospital is recruiting 50 patients aged 65 or more who have hip fracture surgery for a pilot study. The study will test whether giving them a regional anaesthetic for pain relief during and after surgery lowers their risk of delirium.

“A Greek study that offered patients regional analgesia every day of their hospital stay found that post-operative delirium decreased by 55 per cent,” Dr Chiu says. “We won’t be continuing it for that long, but we want to see whether using a regional
nerve block for pain relief in the 24 hours after surgery, instead of using opioids, decreases delirium.

“The patients will all have opioids as part of their standard pain relief during that 24 hours but the patients who have a regional block will probably need less of them.”

Results are expected in six to 12 months.

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