Letters

Dabigatran — neurosurgical anathema?

To the Editor: We welcome the articles by Eikelboom and Hankey[1] and Attia and Pearce[2] about the use of dabigatran as an alternative to warfarin for prevention of embolic stroke. While it is encouraging that new, effective, anticoagulant agents have been added to the anticoagulant pharmacopoeia, we wish to raise specific concerns about the management of intracranial haemorrhage in patients treated with dabigatran.

While both the incidence and mortality of intracranial haemorrhage have been reported to be lower in patients taking dabigatran in the RE-LY trial, no mention was made as to operative management of such haematomas should they occur.[3]

Whereas emergent reversal of warfarin is possible and well standardised, no such evidence exists for dabigatran.[4] With no rapid antidote, one suggested reversal strategy is haemodialysis for 3 hours to remove around 60% of the plasma levels of the drug.[2] However, this is of little comfort to the neurosurgeon required to evacuate a life-threatening haematoma and control haemorrhage in a time-critical situation.

The potential use of recombinant human coagulation factor VIIa (rFVIIa) (Novoseven; Novo Nordisk Inc) to attenuate the effect of dabigatran has been reported recently.[5] Here, we report similar success in a recent patient at our practice. Our patient was a 73-year-old man with normal renal function who experienced a fall from standing height, suffering a large acute subdural haematoma, which warranted expedient evacuation. The patient had been taking 150 mg of dabigatran twice a day for stroke prevention over a number of months. He received two perioperative doses of 8.5 mg rFVIIa as well as platelets, fresh

frozen plasma and postoperative haemodialysis, without rebleeding. He made a good recovery after a prolonged period of rehabilitation.

We suggest that it will only require a relatively small number of serious intracranial bleeds necessitating similar use of rFVIIa and haemodialysis, with unpredictable outcome, to rapidly erode the benefits that dabigatran offers. Alternatives to warfarin certainly have their merits; however, patients and doctors must be fully informed of the emerging challenge and potentially lethal complications that can result from minor head trauma in patients treated with dabigatran.

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1 Eikelboom JW, Hankey GJ. Is there really misuse and abuse of dabigatran? *Med J Aust* 2013; 198: 358-359.

2 Attia JR, Pearce R. The use, misuse and abuse of dabigatran. *Med J Aust* 2013; 198: 356-357.

3 Hart RG, Diener HC, Yang S, et al. Intracranial hemorrhage in atrial fibrillation patients during anticoagulation with warfarin or dabigatran: the RE-LY trial. *Stroke* 2012; 43: 1511-1517.

4 Douketis JD, Berger PB, Dunn AS, et al. The perioperative management of antithrombotic therapy: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines (8th Edition). *Chest* 2008; 133 (6 Suppl): 299S-339S.

5 Parra MW, Zucker L, Johnson ES, et al. Dabigatran bleed risk with closed head injuries: are we prepared? *J Neurosurg* 2013; May 1. [Epub ahead of print.] ❑