

LETTERS

Lidocaine with epinephrine for digital nerve blocks: a note of caution

In light of recent articles debunking emergency department myths, we read the article by Alehail *et al*¹ with interest. We were not surprised that digital ischaemia did not occur in any of the 12 healthy volunteers who were given 4 ml (total) of local anaesthetic with epinephrine injected into the web spaces spanning an uninjured middle finger since there are now case series of thousands of patients² demonstrating the safety of lidocaine with epinephrine for digital nerve blocks and a recent BESTBET in agreement. Historical case reports of digital ischaemia caused by the use of local anaesthetic solutions containing epinephrine have since been attributed to tourniquets, vascular disease and poor placement of excessive volumes of local anaesthetic.³ However, published prospective studies have been conducted on carefully selected patients by hand surgeons seeking to show that local anaesthetics containing epinephrine allow safe prolonged anaesthesia with a reduced need for a finger tourniquet. No studies were performed on unselected patients (such as those with peripheral vascular disease or receiving concurrent vasoconstrictor medications) presenting to the emergency department with acute traumatic finger injuries and few used tourniquets at any stage. We do not disagree with Alehail *et al* that lidocaine with epinephrine can be safely used in the emergency room, but want to highlight that this is the latest article on the subject sending out a message that is potentially open to dangerous misinterpretation.

It is rare in the UK for a clinician in the emergency department to have ring-fenced time to perform a procedure that requires prolonged anaesthesia, and plain lidocaine without epinephrine remains a safe effective choice for most procedures that can be performed in a short timeframe. For those inclined to extrapolate the results of this article to their day-to-day practice, we would caution against the use of epinephrine-containing solutions in conjunction with digital tourniquets and suggest that 4 ml of an epinephrine-containing solution may be excessive for use on toes, children's digits or in the "tight" areas on the radial aspect of the thumb and ulnar border of the little finger.

We will continue to advise emergency department staff—many of whom are inexperienced in managing hand injuries—to avoid using lidocaine with epinephrine for digital blocks, while accepting its safety for use in carefully selected patients by hand surgeons.

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Tip of the iceberg? The four-hour standard

I read with great interest your work summarising the reports concerning the calamitous events at Mid Staffordshire hospital recently. In your concluding piece, you state that current health ministers and the government at large may be concerned that the events at Mid Staffordshire represent the tip of an iceberg rather than a freakish idiosyncrasy. In spring of 2008, the Royal College of Nursing's Emergency Care Association canvassed the opinions of more than 600 of its members across the UK. It was almost universally felt that (1) staff are unduly pressured to achieve the four-hour target by fair means or foul, (2) patients were moved to inappropriate areas simply to meet the target and (3) patients with complex needs often had their care compromised to achieve the target.

These factors were also mentioned as aggravating factors in the Mid Staffordshire hospital Emergency Department. While the majority of the members polled agreed that, overall, the four-hour target had seen positive changes in emergency care services, they have concerns about the manner in which it is often implemented. Like the College of Emergency Medicine in the UK, the Emergency Care Association has called for a 95% threshold for the target rather than the current 98% to address some of the issues above and provide appropriate care to those patients needing time-consuming intervention.

This information has been made available to the Department of Health and I would suggest that the findings indicate that the situation that prevailed in Mid Staffordshire may merely be a severe example of more widespread practice and does represent the tip of an iceberg.

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Treatment of massive pulmonary embolism

Shah and Darwent's paper highlights the difficulty in diagnosing pulmonary embolism but also suggests that medical staff are not aware of the correct management of massive pulmonary embolism and its critical nature. Although the diagnosis of pulmonary embolism was made in the case they describe, the clinical features and blood gases indicate that the patient was critically ill. The diagnosis of massive pulmonary embolism in a deteriorating patient should prompt consultant review, immediate thrombolysis and an urgent echocardiogram or CT pulmonary angiogram to confirm the diagnosis.¹ The patient should be transferred either to the resuscitation room or to intensive care. The recognition of a patient that is critically ill is a skill. Young patients often have a substantial compensatory reserve but once exhausted they deteriorate quickly. Prompt and correct treatment may have prevented the fatal outcome of the case described.

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