support with continuous positive airway pressure (CPAP) for 2 days. He was discharged home 7 days after his operation.

This is the first reported case of an ultrasound-guided TAP block causing a significant postoperative complication and highlights the potential for iatrogenic injury even when ultrasound is used. The injury here was likely due to a failure to accurately image the entire needle during the right-sided needle placement, resulting in excessive depth of penetration. The iLook machine is marketed for use in vascular access procedures and superficial imaging and as such may not produce images of sufficient quality to be used in this setting. Any practitioner using ultrasound for this type of block should be adequately trained in its use and be fully aware of the potential for complications.

Conflict of interest
None declared.

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do:10.1093/bja/aeq046

Gluteal compartment syndrome presenting with features of iatrogenic epidural haematoma

Editor—The debate about whether epidural analgesia can delay the diagnosis of compartment syndrome has recently been reviewed. An alternative, infrequently considered interaction between compartment syndromes and epidural analgesia occurs when the symptoms of compartment syndrome are incorrectly attributed to epidural complications and diagnosis of the true pathology is delayed. We present a case where the diagnosis of gluteal compartment syndrome was delayed due to the erroneous investigation of epidural haematoma.

A 58-yr-old male was admitted electively for elective right common femoral endarterectomy, patch profundoplasty, and above-knee femoro-popliteal bypass. He was morbidly obese, BMI 41 kg m$^{-2}$, but was otherwise generally well. The anaesthetic plan was to perform the surgery under combined epidural and spinal anaesthesia. After establishing epidural cannulation, it proved impossible to safely identify the subarachnoid space and the anaesthetic management was converted to general anaesthesia with an epidural infusion.

The 5 h operation was uneventful and the epidural was working satisfactorily in the immediate postoperative period. He later developed symptoms of paralysis and loss of sensation of the right leg and was reviewed by an anaesthetist and a vascular surgeon who found that tone, muscle power, and reflexes were reduced or absent throughout the right leg. Sensation was absent throughout the sciatic nerve distribution and reduced in the femoral nerve distribution. Perianal sensation and anal tone were normal with no loss of bowel or bladder control. There was no evidence of vascular compromise in the affected leg or of compartment syndrome in the thigh and calf. The patient described mild right hip pain on the affected side which was poorly localized, which was unaffected by palpation or passive hip movement but increased by active movement.

It was felt essential to exclude an epidural haematoma, and following assessment, the neurosurgeons arranged magnetic resonance imaging of the spine which was normal. Plain X-rays of the pelvis and right hip were also normal.

On further review, the pain required increasing analgesia and had progressed to being exacerbated by passive movement. It was now localized to the right buttock which was tender to palpation. Gluteal compartment syndrome with sciatic nerve compression was suspected and the patient taken to theatre for measurement of buttock compartment pressures and emergency fasciotomy.

The fascial pressures were measured at 54 mm Hg on the right (affected side) and 5 mm Hg on the contralateral side (normal range: below 10–12 mm Hg). An emergency fasciotomy was performed around 23 h after the initial symptoms. The fascial compartments of gluteus maximus and medius were both tense and upon decompression, the muscle was oedematous but viable. Motor and sensory function returned rapidly after operation, and the patient made an uneventful recovery and was discharged 8 days later.

Gluteal compartment syndrome is rare and many anaesthetists may be unaware of its existence. It is usually caused by direct trauma or prolonged immobilization, but has been reported after surgery where obesity was felt to be a risk factor. It can have devastating consequences causing permanent paralysis of the limb, renal failure, and death due to rhabdomyolysis. Treatment must be aggressive and delivered early, certainly <8 h after the onset of
symptoms. The anatomy is variably described and possibly poorly understood, briefly it contains three anatomically distinct fascial compartments surrounded by fibrous fascia and all overlying the ilium; the maximus compartment, the minimus compartment, and the tensor compartment. The sciatic nerve lies deep to the maximus compartment and may be compressed against the ilium during compartment syndrome.

This patient developed gluteal compartment syndrome due to the combination of length of surgery and morbid obesity, there was no evidence of any iatrogenic trauma to the right buttock or its vascular supply. We believe that this case is unusual, in that the symptoms of paralysis and sensory loss were out of proportion to the initially mild buttock pain which led to the investigation of epidural haematoma delaying definitive diagnosis and surgical treatment. We are uncertain of the contribution of the epidural infusion to the level of pain at presentation; however, the infusion had been stopped for around 6 h before the first examination.

There are three important points raised by this case. First, this reinforces the view that the complications of prolonged immobility in obese patients are potentially limb threatening, positioning of these patients should be meticulous. Secondly, gluteal compartment syndrome can mimic epidural haematoma. The similarities would have been more pronounced and confusing had the compartment syndrome been bilateral, which has been previously reported. Thirdly, we should question any diagnosis which does not account for all of a patient’s symptoms. This initial hip pain was mild and was neglected but was key to making the diagnosis. This concept is better expressed as Occam’s razor which encourages doctors to look for the fewest possible causes that will account for all of the symptoms.

Conflict of interest
None declared.

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doi:10.1093/bja/aeq047

Cricoid force in children

Editor—I read with great interest the article by Walker and colleagues1 describing compression of the subglottic airway during application of cricoid pressure in children. The findings suggest that possibly related to specific airway morphology and anatomy, children may be even more susceptible than adults to the distorting effect of cricoid pressure on airway anatomy.

In this context, it may be of interest that a couple of years ago, the Section on Paediatric Anaesthesia of the German Society of Anaesthesia and Intensive Care Medicine (DGAI) issued a recommendation on rapid sequence induction in children.2 Considering the known side-effects of cricoid pressure (e.g. interference with airway management, more difficult laryngoscopy and intubation, provocation of retching and vomiting) and the lack of demonstrated benefit of cricoid pressure in general, application of cricoid pressure is officially no longer advocated in children. The findings (not published yet) of our recently finished web-based questionnaire of German anaesthetists strongly suggest that in Germany, this recommendation is already translated into routine clinical practice. Of 3098 anaesthetists replying to the questionnaire, only 1.1% use cricoid pressure in children below the age of 8 yr. The study by Walker and colleagues provides further reason for discontinuing a practice of unproven clinical benefit.

Conflict of interest
None declared.

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doi:10.1111/j.1399-6576.2010.01805.x

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