Oral clonidine vs midazolam in the prevention of sevoflurane-induced agitation in children

Editor—I was interested to read the study concerning the use of midazolam or clonidine premedication for children undergoing sevoflurane anaesthesia. This clearly showed that clonidine effectively reduced the incidence of postoperative agitation in comparison with the benzodiazepine group. A key finding of the study was that this beneficial effect was achieved ‘without increasing postoperative side-effects’. On reviewing the paper, it can be seen that there is a higher incidence of hypotension in the two clonidine groups (25%) when compared with the midazolam group (10%). It is also the case that postoperative bradycardia only occurred in the groups receiving clonidine (four out of 40 patients). These differences may not have reached statistical significance, but it is quite possible that this would have been the case in a larger study. I believe that it would have been more appropriate to state that there was an increased incidence of postoperative hypotension and bradycardia for patients receiving clonidine, but that this did not reach statistical significance. Although it is compelling to believe that an intervention may be made without negative effects, sadly this is seldom the case. The evidence presented in the paper does not support the author’s assertion.

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Editor—We read with interest the comment of Dr Wrench concerning the incidence of side-effects associated with the preoperative use of clonidine to reduce sevoflurane-induced emergence agitation. However, we do not agree with his statement that there was an increased incidence of postoperative hypotension and bradycardia. First, the incidence of postoperative hypotension and bradycardia was not significantly different between the clonidine 4 μg kg⁻¹ and the midazolam groups. Suggesting that this difference might become significant in a more powerful study is speculative, in particular in relation to bradycardia which was 1/20 patients in the clonidine 4 μg kg⁻¹ group and 0/20 patients in the midazolam group. Secondly, only the 4 μg kg⁻¹ dose of clonidine was effective in reducing sevoflurane-induced emergence agitation. In comparison with the 2 μg kg⁻¹ dose, the incidence of postoperative hypotension (5/20 in each group) or bradycardia (3/20 in the 2 μg kg⁻¹ dose and 1/20 in the 4 μg kg⁻¹ dose) was not increased. Thirdly, episodes of hypotension or bradycardia did not require treatment in any of the children. After leaving the recovery room, all the children had an uneventful postoperative course. We therefore believe that in comparison with midazolam, clonidine 4 μg kg⁻¹ reduced sevoflurane emergence agitation without increasing clinically relevant postoperative side-effects.

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Ultrasound-guided sciatic nerve block: description of a new approach at the subgluteal space

Editor—We read with interest the recent manuscript on ultrasound-guided sciatic nerve block: description of a new approach at the subgluteal space. We are pleased to learn that our previously described technique has gained popularity in other centres worldwide. The standard of care at Toronto Western Hospital for patients undergoing total knee arthroplasty is continuous catheter-based femoral nerve block, single-shot sciatic nerve block, and a spinal anaesthetic. Since 2005, we have performed a total of 675 sciatic nerve blocks, of which 207 were done using our ultrasound-guided subgluteal approach. We have found excellent reliability with no reported complications. Karmakar and colleagues have provided a well written, detailed description of their experience with the ultrasound-guided subgluteal sciatic nerve blockade; however, given the similarity with our previously described subgluteal technique, we were disappointed to find no mention of our endeavours.

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Editor—we thank Dr Abbas and Brull for their interest in our recent article. They suggest that we have reported
on a technique that their group has previously described.\textsuperscript{2} We respectfully disagree with their assertion and would like to offer the following explanation to substantiate our claims.

Their article\textsuperscript{2} described the sono-anatomy of the sciatic nerve and a technique of performing ultrasound-guided sciatic nerve injection at the infra-gluteal location in volunteers. By definition, ‘infra-gluteal’ is inferior to the gluteal crease.\textsuperscript{3} Therefore, an infra-gluteal injection for sciatic nerve block is performed inferior to a line joining the greater trochanter and the ischial tuberosity.\textsuperscript{3} \textsuperscript{4} Figure 1 in their article illustrates the location at which the infra-gluteal ultrasound scan and injection is performed. In the technique that we describe, the ultrasound scan and needle insertion is performed above the gluteal crease and directly over a line joining the lateral prominence of the greater trochanter and the ischial tuberosity. Although the two techniques may appear similar, because they are both ‘sub-gluteal’ injections, that is, under the gluteus maximus, and both injections are made in relation to the greater trochanter and the ischial tuberosity, there are subtle anatomical differences that make these two techniques different.

In the technique that we describe, the ‘sub-gluteal space’, which is a well-defined anatomical space and contains the sciatic nerve, is initially identified on the ultrasound image as a hypo-echoic area between the hyper-echoic perimysium of the gluteus maximus and the quadratus femoris muscle. Distention of the subgluteal space to a test injection of saline through the block needle is then confirmed—our end point—irrespective of whether a motor response to nerve stimulation is elicited in the foot or not, before the local anaesthetic is injected. In contrast, Chan and colleagues perform their ultrasound-guided subgluteal injection in the infra-gluteal position after identifying the sciatic nerve using nerve stimulation. There is no mention by Chan and colleagues as to whether they were able to identify a potential perineural space on the ultrasound image of the infra-gluteal area before the local anaesthetic injection, although they report enlargement of the space after the injection. We were able to identify pulsations of the inferior gluteal artery medial to the sciatic nerve in the ‘subgluteal space’ whereas Chan and colleagues were unable to identify any blood vessel in the vicinity of their injection confirming that our two techniques were performed at different locations. Moreover, local anaesthetic also spreads between different muscles in the two techniques. In our technique, the local anaesthetic spread between the gluteus maximus and the quadratus femoris muscle. In comparison, in the infra-gluteal technique, it spreads between the gluteus maximus and biceps femoris muscle posteriorly\textsuperscript{5} and the adductor magnus muscle anteriorly.

We agree that the above discussion should have been included in our report and hope that it will help clarify the differences between our technique and the technique of ultrasound-guided subgluteal sciatic nerve block at the infra-gluteal position.

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Use of LMA-ProSeal\textsuperscript{TM} drain tube for oesophagogastric instrumentation

Editor—The LMA-ProSeal\textsuperscript{TM} has extended the range of surgical procedures that may be undertaken without tracheal intubation.\textsuperscript{1} A recent case illustrated that this repertoire may be further extended to include investigative and potentially therapeutic procedures of the upper alimentary tract.

A 73-yr-old man, who had previously undergone radical radiotherapy and chemotherapy for invasive post-cricoid squamous cell carcinoma, re-presented with dysphagia caused by a cricopharyngeal stricture. Despite endoscopic dilatation of the stricture, insertion of a nasogastric tube was unsuccessful and a percutaneous endoscopic gastrostomy (PEG) was indicated for enteral feeding. The patient underwent a general anaesthetic and before commencing an open PEG procedure, the decision was taken to attempt a direct PEG procedure using the drainage tube of the LMA-ProSeal\textsuperscript{TM}, which is designed to lie at the upper oesophageal sphincter,\textsuperscript{2} as access for the endoscope. The internal diameter of the drain tube of size 3 and 4 LMA-ProSeal\textsuperscript{TM} is 6.5 (0.22) mm. Initially, a size 5 LMA-ProSeal\textsuperscript{TM} was inserted, using the recommended digital insertion technique, but was exchanged for a size 4 LMA-ProSeal\textsuperscript{TM}, as it was felt that the radiotherapy may have altered the dimensions of the oro-pharynx. Although ventilation continued through the airway tube, a lubricated fibre-optic laryngoscope (FOL) (11302BD1, Karl Storz