

under general anesthesia. We have one concern dealing with the size of the needle. The authors used a 17 G Tuohy needle which is much larger than the usual 20 or 21 G needle used in this setting. This practice not only increases the level of pain, but also the risks of bleeding during the placement of the catheter and the secure fixation procedure. Moreover, this procedure could be time consuming and cause delay in a busy orthopedic department.

The reduced incidence of hemidiaphragmatic paralysis observed when interscalene block is performed through the catheter is interesting. We made a similar observation by measuring the hemidiaphragmatic excursion (HE) by means of ultrasonography in patients receiving 30 ml ropivacaine 0.5%, either through an interscalene catheter or as a single shot injection according to Winnie's technique using a nerve stimulator. We found a 60% decrease in HE in the interscalene group *vs* 80% in the single shot group. We believe the main factor explaining the better preservation of HE is the placement of the catheter which permits preferential distal distribution of local anesthetic. This practice may well become the interscalene block technique of choice for patients with severe pulmonary disease.

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REPLY:

Thank you for the opportunity to respond to the letter of Drs. Borgeat and Nadig.

1. *In our experience of 2,125 catheter placements, we have not encountered a single instance where the Tuohy needle damaged the catheter.*
2. *The evidence for recommending that nerve blocks should be done on awake patients only, is unconvincing and largely subjective. The work of Auroy et al.¹ quoted by Coleman and Chan in their editorial² yielded an incidence of nerve damage of four of 21,278 nerve blocks. This incidence is simply too small to come to any meaningful conclusion. Fanelli et al.,³ in a well conducted study, concluded that sedation/analgesia should be advocated during block place-*

ment to improve patient acceptance. We support their views. Furthermore, the Tuohy needle has, to our knowledge, never been implicated in peripheral nerve damage.

3. *We place blocks under general anesthesia, conscious sedation with propofol or in awake patients following proper skin and subcutaneous infiltration with lidocaine. The choice is dictated by the clinical situation. Pain is therefore not an issue and we have not yet encountered an episode of bleeding that would have been prevented by using a thinner needle. Epidurals are regularly done with 17 G Tuohy needles on awake patients without any of the problems mentioned.*
4. *In experienced hands, the procedure does not lengthen the anesthetic time by more than ten minutes.*
5. *We share the opinion of Drs. Borgeat and Nadig on hemidiaphragmatic paralysis and indwelling interscalene catheters.*

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Intrathecal meperidine

To the Editor:

Murto *et al.*¹ investigated the effect of 0.15 and 0.30 mg·kg⁻¹ of intrathecal meperidine on spinal anesthesia produced by lidocaine. They found that 0.30 mg·kg⁻¹ of meperidine intrathecally prolonged postoperative analgesia and reduced the requirements for parenteral analgesics. They also reported the regression of the sensory block.

However, five patients in all groups needed supplementary *iv* anesthesia, which consisted of propofol

and in one case propofol plus fentanyl. Such an intervention may have distorted the results as it has been shown that opioids, N₂O inhalation and to a lesser extent nimodipine affect the spread of sensory block.²⁻⁵ Therefore, the time to two-segment regression and the time to total regression may have been influenced in these patients by the *iv* fentanyl and/or propofol, though for the last one no data are available for its effect on the spread of spinal anesthesia. Some of the patients received H₁ antihistamines drugs producing sedation and dizziness. These drugs also may exert an effect on the spread of spinal block and affect the measurements found by the authors in a non-homogenous manner. Since systematic administration of some analgesics and anesthetics affects the spread of spinal analgesia, we postulate that in studies where different treatments are assessed all groups should be treated in a similar way except for the treatment under investigation, otherwise the results may be misleading.

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References

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Accidental dental injury of radiolucent replacement teeth during intubation

To the Editor:

We report a case of an accidental dental injury and discuss problems with radiolucent replacement teeth. It is not well known that resin is radiolucent.

A 63-yr-old man was admitted complaining of a squamous cell carcinoma in his oral cavity. Excision of

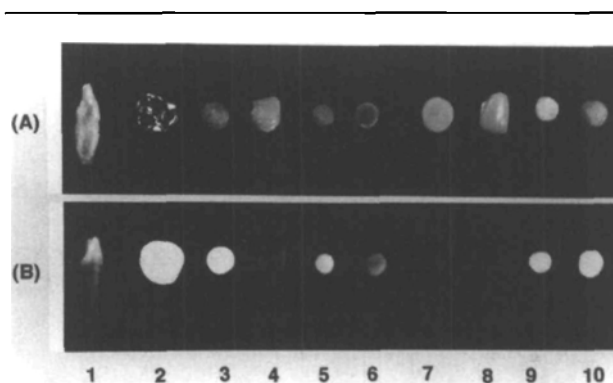


FIGURE Photograph (A) and X-ray (B) of teeth (1), metal (2), amalgam (3) porcelain (4), light curing resin (5), glass ionomer cement (6), self curing resin (7), temporary crown (8), temporary filling (9, 10).

the tumour was scheduled under general anesthesia which was induced with 100 mg propofol. Then, 6 mg vecuronium was administered and the larynx was observed by direct laryngoscopy. Using Magill's forceps, a 7.5 mm spiral tube was inserted via the nasal cavity. During intubation, we accidentally injured the replacement resin of a tight upper cuspid tooth. We looked for the lost resin in the oral cavity and larynx, without success. No foreign body was seen in the airway on bronchofibrescopy or on chest X-ray, which was normal. Surgery commenced and ventilation and vital signs were stable during surgery. After emergence from anesthesia, the trachea was extubated and the postoperative course was uneventful. The lost replacement resin was found in feces two days later.

The incidence of dental damage during anesthesia ranges from 1: 150 to 1: 1000 endo-tracheal intubations.¹⁻³ Several investigators have reported damage to crowns or bridges,^{3,4} but radiolucent replacements have not been discussed. In this case, a chest X-ray could not locate the self curing resin. Therefore, we examined radiologically the replacement material in current use together with a tooth (Figure), and found that self-curing resin and temporary crowns were radiolucent. Anesthesiologists should remember that some of the replacements are radiolucent.

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