sequence was performed with rocuronium and alfentanil. She recalled no weakness postoperatively.

At the time of the current presentation, she had brisk reflexes, and a positive Babinski sign on the right with no focal weakness. She was otherwise well, and had a normal airway examination.

She was fasted, and premedicated with ranitidine, metoclopramide and sodium citrate.

The anesthetic machine was prepared according to standard malignant hyperthermia protocol to avoid the potential risk of rhabdomyolysis. Anesthesia was induced with midazolam and fentanyl followed by a propofol TCI. A size 4 laryngeal mask airway was inserted and she remained spontaneously breathing only oxygen for the ten-minute procedure. Routine observations including temperature were stable throughout. At the time of discharge three hours later, she walked unaided, easily.

Evidence suggests that AHC is a channelopathy, sometimes with mitochondrial abnormalities.[2] Flunarizine, a selective calcium channel blocker, appears to have some success in reducing duration and frequency of attacks.[3] There has only been one case report of AHC and anesthesia, describing this same patient, whilst she was having her Cesarean section.[4] For this patient, total *iv* anesthesia appeared the safest option. She was fearful that the stress of a regional anesthetic could trigger an attack. As she was slim and well fasted, using an laryngeal mask airway was deemed appropriate, and muscle relaxants could thus be avoided.[5] There are only 250 documented cases of alternating hemiplegia in the world, although under-diagnosis is probably common. Due to the rarity of the disease, and its unusual presentation, patient care would likely benefit from establishment of an international database.

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References

1 *Verret S, Steele JC.* Alternating hemiplegia of childhood: a report of eight patients with complicated migraine beginning in infancy. Paediatrics 1971; 47: 675–80.

2 *Casaer P, Azou M.* Flunarizine in alternating hemiplegia in childhood. Lancet 1984; 11**:** 579.

3 *Mikati MA, Kramer U, Zupanc ML, Shanahan RJ.* Alternating hemiplegia of childhood: clinical manifestations and long term outcome. Pediatr Neurol 2000; 23 134-141

4 *Parris-Piper TW.* Caesarean section under general anaesthetic in a woman with alternating hemiplegia of childhood. Int J Obstet Anesth 2002; 11**:** 317–20.

5 *Han TH, Brimacombe J, Lee EJ, Yang HS.* The laryngeal mask airway is effective (and probably safe) in selected healthy parturients for elective cesarean section: a prospective study of 1067 cases. Can J Anesth 2001; 48**:** 1117–21.

Dry tap and spinal anesthesia

To the Editor:

A major advantage of spinal anesthesia is its definitive endpoint i.e., the free flow of cerebrospinal fluid (CSF).[1] Occasionally the needle is felt to be in the correct space, but on withdrawing the stylet there is no CSF flow ('dry tap'). Common sense dictates that the procedure be repeated, but if the outcome remains the same and the patient refuses general anesthesia the options are limited. Consent was obtained from the hospital's Research and Development Committee and the patient was informed of our intention to publish this case history.

A 60-yr-old obese (120 kg) male with a fear of general anesthesia, was admitted for removal of an infected pin and plate from his tibia. Past history included a cervical laminectomy four years previously. He had been admitted for the same procedure (removal of pin and plate) a few months earlier. Spinal anesthesia was attempted, but abandoned after seven attempts, with no notation as to the nature of the difficulty experienced. As the patient refused a general anesthetic, surgery was postponed. On the current admission he remained adamant that he would only consent to regional anesthesia. A 24G Sprotte needle (Pajunk, Geisingen, Germany) was introduced into the L3–4 interspace in the sitting position and although a 'give' was felt, no CSF was seen. The procedure was repeated at the L2–3 interspace with the same result. Aspiration using a 2-mL syringe also failed to produce any CSF. At this point we injected 3 mL of heavy bupivacaine 0.5% in the L2–3 space and, within ten minutes he had a sensory block up to T12. Surgery proceeded uneventfully.

Causes of dry tap include a blocked needle, needle in the wrong space, spinal surgery and low CSF pressures. It is possible that in patients with 'absent' CSF or very low CSF pressure, the subarachnoid space is obliterated as the arachnoid "collapses" on the pia. This increases the volume of the subdural space and may explain the absence of CSF. In this setting an epidural may be considered, but is not without poten-

tial drawbacks as a dural tap may go unrecognized. A final block would not have subjected the patient to any undue risk because of the small volume of local anesthetic involved. While it is not our intention to advocate this practice in every patient who has a 'dry tap', we share this experience due to its infrequent clinical presentation.

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Reference

1 *Wildsmith JA, Armitage EN.* Principles and Practice of Regional Anesthesia, 2nd ed. Churchill Livingstone; 1993.

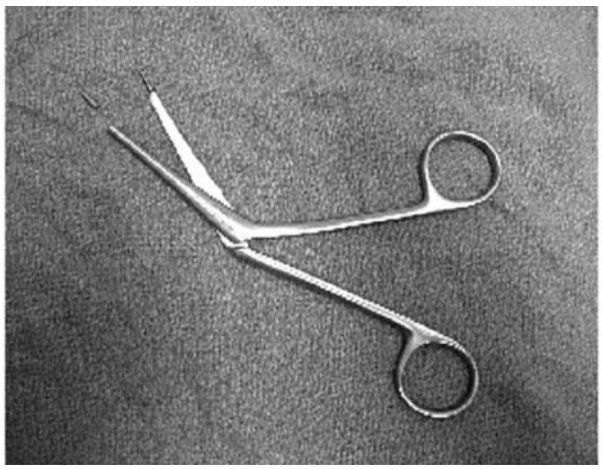

FIGURE Shows the broken fragment A) from the tip of one arm of the Magill's forceps measuring approximately 1.2 mm by 5 mm

Broken fragment from a Magill forceps in the airway of a neonate

To the Editor:

There have been previous reports of airway instrumentation equipment coming apart or breaking off and lodging in the airway.[1] We recently experienced a Magill forceps (MF) breaking off and causing potential for aspiration. The patient, a 3.0-kg male, former preterm infant of 40 weeks post-conceptual age, required laparotomy for bowel obstruction post-gastroschisis repair. A rapid sequence induction with Sellick's maneuver was conducted. A nasal endotracheal tube (ETT) was advanced through the right nostril until it was visualized in the oropharynx. The ETT was then grasped with the aid of a MF (SAR- MED, St-Laurent, Qc, Canada), but this intubation attempt proved quite difficult because the tip of the ETT was held up at the anterior commissure of the vocal folds. The maneuver was stopped, and bag and mask ventilation was instituted before undertaking a second attempt at intubation. Prior to the second attempt, inspection of the MF revealed that the tip of one arm of the forceps was missing. We assumed that the broken piece must be lying in the airway. Laryngoscopy was immediately conducted and the broken piece located in the right pyriform fossa was removed using another MF. Tracheal intubation was successfully performed, and the operation was carried out uneventfully.

Stainless steel is the metal of choice in manufacturing MF. It is primarily an alloy of iron and chromium and is not meant to corrode, although it can. It is susceptible to pitting corrosion, which may act as points from which cracks originate. These pits have recently been attributed to tiny-sulfur rich impurity particles.[2] This phenomenon could well be the underlying mechanism in conjunction with metal fatigue and repetitive mechanical strain causing the failure of our MF (Figure). Had the patient aspirated the fragment, airway obstruction would have resulted.

Fortunately, these potential problems were averted because another MF was immediately available. Checking adjunctive airway equipment properly can help prevent equipment-related morbidity and mortality, improve preventative maintenance, and educate the anesthesia provider about the equipment.[3–5] In conclusion, our report alerts anesthesiologists to the possibility of breakage of MF and to the importance of proper scrutiny of all anesthesia-related equipment.

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References

1 *Andrews BW, Targ AG.* Fragmentation of tube exchanger (Letter). Anesth Analg 1995; 80: 638–9.
2 *Ryan MP, Williams DE, Chater RJ, Hutton BM, McPhail DS.* Why stainless steel corrodes. Nature, 2002; 415: 770–4.