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.

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 pre-term 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 sus-

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

ceptible 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.

- 3 Dorsch JA, Dorsch SE. Equipment checking and maintenance. In: Dorsch JA, Dorsch SE (Eds). *Understanding Anesthesia Equipment*, 4th ed. Baltimore: Williams and Wilkins;1999: 938.
- 4 Cooper JB, Newbower RS, Kitz RJ. An analysis of major errors and equipment failures in anesthesia management: consideration for prevention and detection. *Anesthesiology* 1984; 60: 34–42.
- 5 Kumar V, Barcellos WA, Mehta MP, Carter JG. An analysis of critical incidents in a teaching department for quality assurance. A survey of mishaps during anaesthesia. *Anaesthesia* 1988; 43: 879–83.

Insertion of a nasogastric tube with the patient in the prone position

To the Editor:

Although many techniques to facilitate the passage of a nasogastric tube (NGT) have been reported, the insertion of an NGT in anesthetized patients can at times be unexpectedly difficult.^{1–3} We evaluated a novel approach of using the prone position to facilitate NGT insertion compared with classic insertion in the supine position. The Hospital Ethics Committee approved this protocol, and informed consent was obtained from 45 patients scheduled for elective lumbar supine surgery. After orotracheal intubation under general anesthesia, a 14-French silicon NGT (Create Medic Company, Ltd., Yokohama, Japan) was generously lubricated and inserted in the supine position. The anesthesiologist was permitted to lift the patient's tongue jaw, the cricoid cartilage and the thyroid cartilage. The right nostril was filled with the lidocaine jelly, and the NGT was gently inserted into the naris and blindly advanced into the stomach. If the NGT coiled or failed to advance into the stomach on the first attempt, the NGT was withdrawn slightly and secondary insertion was attempted. Placement of the NGT in the stomach was confirmed by the presence of a swooshing sound heard through a stethoscope placed over the stomach while injecting 10 mL of air into the NGT. After a successful insertion or failure twice in the supine position, the NGT was withdrawn slightly, and the patient was turned to the prone Hall-frame position on a lumbar supine surgery table. The patient's neck was rotated 45° to the right on the table and the NGT was inserted. The number of successful inserted cases within two attempts at either position was compared. In one patient, neck lateral *x-ray* imaging was taken in both positions.

The number of successful cases in the prone position (42/45, 93%) was significantly higher than in the

FIGURE Cervical *x-ray* imaging of a case in which a nasogastric tube (NGT) could not be advanced into the stomach with the patient in the supine position (A), but could be advanced with the patient in the prone position (B). There was obviously a wide space (arrow) to pass an NGT at the hypopharynx and esophageal constrictions in the prone position, but no space in the supine position.

supine group (15/45, 33%), ($P < 0.01$). Cervical *x-ray* imaging (Figure) shows that there was sufficient space to pass an NGT at the hypopharynx and esophageal constrictions in the prone position. In this patient, the NGT was coiled at the pharynx, and did not advance to the esophagus in the supine position. However, in the prone position, the NGT was easily advanced into the stomach.

Ozer *et al.*¹ reported that the arytenoid cartilages and piriform sinuses resist passage of an NGT at the laryngeal level. Isono *et al.*⁴ reported in patients with obstructive sleep apnea that the supine position not only decreased static pressure-area curves and maximum cross-sectional area, but also increased the closing pressure at both the retropalatal and retroglottal airways. We report that the prone position facilitates the insertion of an NGT compared with the supine