anesthesiologists when I mention latex anaphylaxis, the level of
awareness of the problem within our profession is far from adequate,
despite recent articles, letters, and editorials on the subject.2-4 To
improve this situation, I urge all anesthesiologists to reread thought-
fully the recent excellent review article on latex allergy.3 I also en-
courage departments to discuss this problem at grand rounds or other
departmental functions and to post the article in the anesthesia
workroom or other central location. Furthermore, it is crucial to
discuss the problem of latex allergy with the nursing staff, to raise
their awareness, and to ensure that the necessary items for caring for
patients with this allergy (most importantly, nonlatex gloves and
foley catheters) are available. With the increase in latex exposure in
the general population and especially in the medical population, we
will be seeing more latex-allergic patients.6 The burden is on all of
us to understand latex allergy and manage it correctly.

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Catheter Location and Patient Position Affect Spread
of Interpleural Regional Analgesia

To the Editor—This is a report on the effect of catheter location
and patient position on interpleural regional analgesia. Following
institutional approval, informed consent was obtained from 17 pa-
tients with severe pain from multiple rib fractures. A radioopaque
catheter was inserted toward the apex of the pleural space (apical
catheter) in 12 patients, and in 5 patients toward the base (basal
catheter) via a 16-G Tuohy needle inserted at the fourth intercostal
space at the anterior axillary line. After catheter locations were con-
firmmed by x-ray, 1% lidocaine 10 ml was injected through the apical
or basal catheters with the patients supine, and the extent of hy-
pesthesia assessed with an alcohol swab 15 min later. After 2 h, 10 of
the patients with an apical catheter and who were able to sit upright
received the same dose of lidocaine. They were kept sitting for 15
min while the extent of hypesthesia was assessed as above. In addition,
99mTcO4−-370 MBq in 10 ml physiologic saline was injected through
the apical or basal catheter. After 5 min, radiostotope images by
gamma camera were obtained.

Th

The mean hypesthesia range after injection through the apically
located catheter of supine patients was T2.5–T10.3 (n = 12), whereas
it was T5.5–T10.2 (n = 10) when these patients were sitting. When
the injection was made via the basally located catheter in supine
patients, the range of hypesthesia was T5.8–T11.0 (n = 5). Although
there were statistically significant differences in the cephalad extent
of hypesthesia between injections via the apical catheter in patients
supine or sitting, there were no significant differences observed with

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Fig. 1. Hypesthesia ranges (average number of dermatomes
blocked) as measured in the anterior midclavicular line.
respect to the lower limit of hypesthesia (Wilcoxon test; fig. 1). According to the radioisotope images, radioisotope distributed to the whole of the pleural space through the apical catheter but did not distribute to the upper level of the pleural space through the basilar catheter.

The current study suggests that the spread of intropleural regional anesthesia is affected both by catheter location in the pleural space and by body position at the time of injection of local anesthetic. Catheters should be inserted toward the apex of the pleural space and local anesthetics should be administered with the patients supine to obtain the best pain relief in the chest.

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Endobronchial Intubation by a Nonbeveled Endotracheal Tube in Infants and Small Children

To the Editor—Two major opinions exist regarding the primary factor that determines the side of endobronchial intubation, the anatomy of the carina and the tracheal bifurcation,1,4 or the side of bevel of the endotracheal tube.3,4

Recently, it was suggested, based on a single case, that a laryngectomy tube with no lateral bevel has an equal chance of advancement to the right or the left main bronchus.5 Furthermore, it was claimed that the bevel of the endotracheal tube, not the tracheobronchial angle, is the important factor determining the side of inadvertent bronchial intubation. However, because I have failed to find prospective studies that investigated the side to which the tip of a nonbeveled endotracheal tube would pass, I have performed such a study.

After institutional and parental approval had been obtained, the investigation was carried out on 60 children, aged 1 month to 3 yr, undergoing inguinal herniorrhaphy during general anesthesia. The distal end of an ordinary Portex endotracheal tube was cut off 90° to the longitudinal axis. The edge was then polished and the tube resterilized. Anesthesia was induced with an inhalational agent; succinylcholine 2.0 mg · kg⁻¹ was given; and the lungs were ventilated using 100% oxygen. While the child was supine with the head and neck in the midline, direct laryngoscopy was performed and orotracheal intubation using the nonbeveled tube was performed. The tracheal position of the tube was verified by chest auscultation. The tube was then blindly pushed down beyond the carina. After the bronchial location of the tip of the tube was verified by chest auscultation, the tube was withdrawn into the trachea. Attention was paid not to rotate the tube during the procedure. In 52 subjects, the tube entered the right main bronchus. In the remaining 8 subjects, the tube entered the left ($P < 0.001$, chi-square test).

These results suggest that when a nonbeveled endotracheal tube is used, right bronchial intubation is more likely than left. This finding is clinically relevant, because currently a nonbeveled endotracheal tube (Linder Nasotracheal Airway with AIRGUIDE inflatable introducer, Polamedco, Inc., Inglewood, CA) is commercially available.

In conclusion, when the side of the bevel of the endotracheal tube is not a factor, the anatomic feature of the tracheobronchial tree including the angle of the bifurcation determines the side of endobronchial intubation.

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