validated as being a measure of steady-state neurotransmitter turnover and, hence, neurotransmission in monoaminergic pathways. Using these ratios, we determined that noradrenergic neurotransmission was significantly (unpaired t test corrected for multiple comparisons) lower in animals treated with clonidine, 0.1 mg/kg, than in parallel control animals (fig. 1) Dopamine and serotonin turnover were unaffected.

While these studies do demonstrate concomitant reductions in noradrenergic neurotransmission and anesthetic requirements for halothane following clonidine administration, a causal relationship has not been established. Additionally, the postsynaptic alpha₂ adrenoceptors may be an important mediating mechanism for the anesthetic-sparing action of the alpha₂ agonists and require further investigation.

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Bronchial Intubation in Children: Does the Tube Bevel Determine the Side of Intubation?

To the Editor:—In a recent report, Kubota et al. have shown that the angle of the tracheal bifurcation in children totalled approximately 80°; the right bronchial angle being 31 ± 5°, while the left bronchial angle was 49 ± 7°. This anatomic tracheobronchial relationship favors inadvertent or intentional intubation of the right mainstem bronchus. However, Block challenged this conclusion, suggesting that the tracheal tube invariably enters the right bronchus because the bevel of the tube faces to the left following insertion, and its tip, therefore, lies to the right of the midline of the trachea. In this report, we try to answer the question of whether the bevel of the tracheal tube determines the side of bronchial intubation in children.

Investigation was approved by the human studies committee. It was carried out on 10 children, aged 1–6 yr, undergoing inguinal herniorrhaphy during general anesthesia. For every child, two Portex® tracheal tubes of appropriate size were prepared; one of the tubes was the already available left-bevelled tracheal tube. The distal end of the second tube was modified to have about 45° right bevel; the edge was then polished and the tube resterilized. All children were premedicated with intramuscular pentobarbital 4 mg · kg⁻¹ and atropine 0.02 mg · kg⁻¹. Anesthesia was induced with iv thiopental 5 mg · kg⁻¹ and succinylcholine 1.5 mg · kg⁻¹, and the patient was ventilated by 100% oxygen. While the child was in the supine position with the head
and neck in the midline, direct laryngoscopy was performed and orotracheal intubation using the left-bevelled tube was performed. The tracheal position of the tube was verified by chest auscultation, which revealed equal breath sounds on both sides. The tube was then blindly pushed down until breath sounds were heard on only one side of the chest. After the bronchial location of the tube was verified by chest auscultation, the tube was withdrawn into the trachea and both lungs were ventilated. The trachea was then extubated and the same steps were repeated using the right-bevelled tube. Each child acted as his or her own control. Throughout the period of investigation, which lasted 3–5 min, the children were ventilated with 100% oxygen.

In all children, the left-bevelled tube entered the right main bronchus, while the right-bevelled tube entered the left main bronchus. These results suggest that bevel of the tracheal tube, and not tracheobronchial angle, is the principal factor determining the side of bronchial intubation.

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