is present then the trachea should remain intubated and the patient
should be placed in an intensive care unit until the swelling has resolved
and the trachea can be extubated safely. The development of the edema
is insidious. It has occurred as late as 2 1/2 h after surgery and has wors-
ened over the subsequent 9–36 h. Even if no edema is seen at extuba-
tion, patients should be observed carefully, particularly after pro-
cedures lasting 3 h or more. Conventional management may fail to
re-establish the airway should it be lost and emergency tracheotomy,
cricothyrotomy or transtracheal jet ventilation may be required.

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Proper Lateralization of Left-Sided Double-Lumen Tubes

To the Editor.—The placement of a left-sided Robertshaw design,
double-lumen endobronchial tube is usually accomplished as follows.
After the tip of the bronchial catheter is below the glottis, the stylet is
removed, the tube is rotated counterclockwise through 90 degrees,
and then advanced until resistance is met.1 The bronchial lumen should
now lie in the left mainstem bronchus. It is important to not advance
the tube at all until it has been rotated, otherwise it may enter the
right mainstem bronchus which arises from the carina at a less acute
angle.

Despite following the above protocol, a left-sided tube may still be-
come located in the right mainstem bronchus and repeated attempts
at correct placement may be unsuccessful. When this was our experience
on several recent occasions, we found that rotating the patient’s head
and neck to the right, prior to rotating and advancing the tube, resulted
in proper lateralization of the left-sided Broncho cathet (Mallinckrodt
Inc., Argyle, NY) double-lumen endobronchial tube.

Bronchoscopists have long recognized the increased difficulty of in-
serting a rigid bronchoscope into the left mainstem bronchus because of
the angle it makes with the trachea and because its orifice is partly
covered with the tracheal carina in 74% of patients.2 The technique
recommenced for passage of a rigid bronchoscope into the left main-
stem bronchus is that, “after the carina is identified, the patient’s head
and neck are raised and abducted to the right, the patient’s face being
simultaneously turned to the right. In most cases the bronchoscope
will now readily slip into the main bronchus, although sometimes it is
necessary to displace the carina to the right.”2

Kubota et al.3 have reported their experience of selective blind left
double bronchial intubations using a single-lumen endotracheal tube in
300 adults. The highest success rate (275/300, or 92%) was achieved
when the tube was rotated 180 degrees (so that the bevel faced toward
the right) and the patient’s head was turned to the right. When the
head was not rotated to the right the success rate was only 61% (182/
300). The difference in success rates was statistically significant (P < 0.01). These authors3 offered no explanation for why their success
rate was improved when the head was turned to the right.

We have now incorporated this step, of rotating the head and neck
to the right, as part of our routine technique during placement of left-
sided double-lumen endobronchial tubes. In our recent experience,
the method has so far been uniformly successful with the tube being
correctly localized on the first attempt at placement.

We are presently studying the mechanism whereby turning the head
and neck improves the success of tube placement. The most likely
explanation is that turning the head shifts the larynx to the right in
relation to the carina. This would tend to bring the axis of the left
mainstem bronchus more into line with that of the trachea, i.e., the
bronchus would arise at a smaller angle, and the endobronchial tube
would have a “straighter shot” at the left mainstem bronchus. It is also
possible that head turning stretches the trachea and left main bronchus,
thereby altering the anatomy of the origin of the left mainstem bronchus
to make it wider or less slit-like, either way rendering it more receptive
to the passage of the bronchial catheter of a left-sided double-lumen
endobronchial tube.

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