cient difference according to lobar site of the primary lung carcinoma (WBCH p=0.34; NCI p=0.46). There is no special propensity of upper lobe cancers to spread to distant sites. Systemic metastases are more common from lung cancers in the upper lobes because lung cancer in general is more common in the upper lobes.

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REFERENCES

Staging Bronchoscopy in the Preoperative Assessment of a Solitary Nodule

To the Editor:

In the July 1993 issue of Chest, Dr. Goldberg et al1 recommended that based on the investigation of 35 patients who presented with an indeterminate solitary pulmonary nodule (SPN) on chest x-ray film to abandon staging bronchoscopy in the diagnostic management of such cases. They found an unfavorable cost-effectiveness ratio for bronchoscopy in this specific setting because of the cost of the procedure and its low rate of positive findings.

At the General Hospital of Verona, we reviewed the record of 864 consecutive patients who underwent fiberoptic bronchoscopy for an indeterminate SPN between 1981 and 1988. In 71 subjects (8 percent), an endoscopically visible lesion of proximal airways was detected, and 8 patients (1 percent) were found to carry an unsuspected intraluminal lesion on the other side of a peripheral lesion. In five other patients (0.5 percent), an asymptomatic early stage laryngeal cancer was revealed by bronchoscopic examination. As a whole, about 10 percent of the patients had their therapeutic strategy modified by the findings documented on bronchoscopy.

Considering our resident countries—Italy and the United States—we and Dr. Goldberg see about 50,000 to 10,000 malignant SPN annually, which is about 25 to 50 percent of all bronchogenic carcinomas.2 We can estimate a cumulative number of 6,000 patients whose therapy can be substantially modified by staging bronchoscopy.

It can be argued that such a relatively small rate is statistically negligible, but this does not appear to be an important issue when individual patients may instead benefit from an additional poorly invasive investigation.

We, therefore, disagree with the dogmatic conclusions of the authors whose recommendation has to be challenged in a larger series before being accepted.

Meanwhile, we continue to perform staging bronchoscopy before surgery in these patients, without feeling guilty about unnecessary additional costs for the national healthcare system.

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REFERENCES

Hypoxic Lactic Acidosis

To the Editor:

In the September 1993 issue of Chest, Rhee et al3 compared infusions of carbicarb, sodium bicarbonate, and sodium chloride administered at a dose of 2.5 mEq/kg Na+ in a canine model of hypoxic lactic acidosis. They found that 30 min after completion of the infusion, arterial and intramyocardial pH increased with carbicarb, whereas there were no significant changes after the other two solutions.

In a canine model of hypercarbic acidosis comparing carbicarb, sodium bicarbonate, and hypertonic saline,4 we found that intramyocardial pH, measured by a Khuri pH electrode, increased during infusions of both carbicarb and sodium bicarbonate. Interestingly, pilot studies that we conducted before this investigation showed that intracoronary administration of carbicarb at 0.5 ml/min was roughly equivalent to sodium bicarbonate at 2 ml/min in raising intramyocardial pH. In contrast, infusing equal volumes of the two buffering agents (2 ml/min) was associated with an overshoot of intramyocardial pH in the carbicarb group. Even though the two drugs appear to have the same buffering capacity per ml in vitro, I wonder whether Rhee et al4 assessed the in vivo effect of carbicarb vs sodium bicarbonate (in terms of mEq/kg Na+) on intramyocardial pH before the establishment of hypoxic lactic acidosis.

Because we found that carbicarb (0.5 ml/min) and sodium bicarbonate (2 ml/min) also raised preload recruitable stroke work to supranormal levels at 15 min, an alternative explanation for the hemodynamic findings of Rhee et al3 is simply that more buffer was administered; and hence, more protons were neutralized in the carbicarb group than in the sodium bicarbonate group.

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