distal end of the tracheal tube, and we believe that the direction of the jet emerging from the catheter is parallel to the long axis of the trachea. This therefore should not result in significant barotrauma.

Epithelial effects were examined in tracheal tissue biopsy specimens taken distal to the tip of the tube as well as from major and secondary bronchi. Epithelial necrosis and injury occurred after MDI delivery of both salbutamol and matching placebo. Minimal injury, not distinguishable from the appearance after control treatment, occurred after nonoleic acid placebo MDI administration. Since the nonoleic acid placebo MDI contains propellants, if freezing were a component in the pathogenesis of the epithelial necrosis, it should have been evident with this preparation.

We conclude that barotrauma and freezing do not result in epithelial damage with the catheter delivery system and speculate that oleic acid in the salbutamol MDI injures respiratory epithelium. Further investigation of the MDI-catheter method of delivering aerosols to the airway is required before it can be recommended for treatment in humans.

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Treating Plombage Complications Techniques Available?

To the Editor:

Before the invention of chemotherapy, surgical treatment like paraffin plombage, pneumothorax-therapy (extra- and intrapleur-

nal pneumothorax), etc., were common methods of tuberculosis treatment.

A 57-year-old male patient was admitted to our department suffering from massive, fatty diarrhea, mild exsiccosis, and fever. A chest x-ray film revealed bilateral pleural opacities in the upper lateral sections of each hemithorax, a liquid surface in the right opacity suggested a seropneumothorax (Fig 1). Instillation of methylene blue into the cavity resulted in blue sputum a day later, confirming the rupture of a paraffin seal from bilateral surgical tuberculosis therapy 40 years ago. Percutaneous needle aspiration resulted in recovery of pus and culture of Streptococcus anginosus subsp milleri.

Intravenous antibiotic therapy was initiated, and the empyema was washed with saline solution 0.9 percent twice daily. Afterward, tetracycline (500 mg in 20 ml saline solution) was instilled into the resulting cavity. Two days after the beginning of treatment, the fever vanished; coughing and chest pain improved after 1 week.

In our view, it appears mandatory to know the different techniques of paraffin, wax, and fibreglass plombage thoracoplasties or thoracoplastic operations as those patients are admitted to hospitals with atypical symptoms and strange x-ray film or sonography findings that require special handling.

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Lung Carcinoma in a Patient With Lucite Sphere Plombage Thoracoplasty

To the Editor:

We read with interest in the April 1993 issue of Chest1 about a woman presenting with a lung carcinoma associated with Lucite balls implanted 42 years earlier as collapse therapy for pulmonary tuberculosis.

As the authors clearly state, there has not been another report of a lung carcinoma in association with a Lucite sphere plombage; however, a primary skeletal chondrosarcoma arising in conjunction with this foreign material was reported in 1969.2 The tumor arose in the chest wall of a 60-year-old woman 18 years after the plombage. These are only two cases, both occurring in women, of malignant neoplasms casually or causally related to methylmethacrylate plombage; however, internists, radiologists, chest physicians, and thoracic surgeons should keep in mind this possibility when seeing patients who were operated on 40 or more years ago and who return for diagnosis and treatment of the late complications of Lucite sphere plombage.

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