If the hemoptysis is massive, a double-lumen endotracheal tube should be passed to facilitate ventilation and to prevent aspiration of blood into the unaffected lung. Inflation of the balloon of the pulmonary artery catheter at the site of rupture might prevent further bleeding into the affected lung. The ensuing hemorhage is often uncontrollable; mortality has been about 50 percent.* Those patients who do not rapidly exsanguinate may require emergency lobectomy, pneumonectomy, or vascular repair.

It should be emphasized that the need for the "confirmed" wedge pressure should be weighed against the very real risk of this potentially fatal complication. Occasionally, it has been our practice in the catheterization laboratory, if we have not been able to obtain an accurate wedge pressure, to pull the catheter back into the pulmonary artery and to use the pulmonary artery diastolic pressure that coincides with the "combined" wedge pressure instead.

The balloon-tipped pulmonary artery catheter was recently modified by converting the proximal incision post to a right ventricular post that allows precise bedside determination of the proximal pulmonary artery catheter position.† This modification may add a margin of safety to pulmonary artery catheterization in patients of advanced age with significant pulmonary hypertension, but further investigation is needed to substantiate the benefit.

Shanl G. Neurukonda, M.D., and Richard D. Jantz, M.D., Cardiovascular Services, Presbyterian/St. Luke's Medical Center, Denver

REFERENCES
3 Swan HJ, Ganz W. Guidelines for use of balloon-tipped catheter. Am J Cardiol 1974; 34:119-20

Chylothorax
A New Surgical Strategy

To the Editor:

We read with interest in the June 1992 issue of Chest the case report by Rosenblum and Schrader.1 Clearly, benign lymphangiomas are significant in the etiology of spontaneous chylothorax.

A not dissimilar case was reported by Scholefield and Angwin3 in 1989. In this instance the lymphangioma presented as a thoracic inlet compression syndrome, and a chyous leak followed debulking thoracotomy. Due to the persistence of the chylothorax (10 days), surgery was advocated. Via an abdominal approach, the aorta was identified at the diaphragmatic hiatus, and the cisterna chyli was found on its right side. The emerging thoracic duct was ligated in continuity. The thoracic duct was also ligated at its insertion into the left subclavian vein (probably an unnecessary safeguard). The leak ceased within 24 h. Preoperative lymphangiography had confirmed the ductal anatomy and the site of the leak.

Of the last six patients who presented with a chylothorax in our unit, five have undergone successful abdominal ligation of the thoracic duct at the cisterna chyli. The other patient was treated conservatively. The cause of the chyous leak was postsurgical in five cases and was spontaneous, secondary to non-Hodgkin's lymphoma, in the sixth. It was interesting to note that in the case described by Rosenblum and Schrader, mediastinoscopy had been performed prior to the leak.

We feel the abdominal ligation of the thoracic duct is a valuable procedure in these cases and obviates the risks of rethoracotomy. Preoperative lymphangiography is essential to define the lymphatic anatomy, as there may be more than one thoracic duct.

Peter F. Mason, M.B., Ch.B., and
James A. C. Thorpe, M.B., Ch.B.,
Department of Cardio-Thoracic Surgery,
Northern General Hospital,
Sheffield, England

REFERENCES

To the Editor:

Drs. Mason and Thorpe raise an interesting and pertinent alternative to the treatment of chylothorax. An abdominal approach to ligation of the thoracic duct certainly obviates the need and associated risks of repeat thoracotomy, but has all the attendant risks associated with abdominal surgery. In addition, a parietal pleurectomy cannot be performed with this approach, should the surgeon feel it is necessary. Most surgeons currently favor a transthoracic approach because of the uniform good results and identifiable anatomic landmarks. However, a transabdominal approach should be considered in circumstances where repeat thoracotomy may be too hazardous.

Although surgical trauma is a common cause of chylothorax, we strongly believe that our patient had a spontaneous chylothorax. Chest x-ray films obtained during the postoperative period did not reveal any pleural fluid, and the clinical presentation occurred 2 months after the mediastinoscopy. An iatrogenic chylothorax would have presented much earlier.

Harry M. Rosenblum, M.D., F.C.C.P.,
Tallahassee, Florida

Atrial Fibrillation Complicating Transesophageal Echocardiography

To the Editor:

Transesophageal echocardiography (TEE) has emerged as the method of choice for imaging the heart.1 Several large series have established the safety of TEE, even when used in critically ill patients.2-4 The incidence of cardiovascular complications during this procedure is extremely rare, reported as 0.08 percent in the European multicenter study, primarily related to development of arrhythmias. We report the development of atrial fibrillation during

CHEST / 103 / 6 / JUNE, 1993 1929
a recent TEE study to emphasize the potential for this complication.

A 70-year-old white man was referred for TEE, to evaluate a possible cardiac source for embolism. He was originally admitted after suffering a left hemispheric infarct, associated with aphasia. The patient had no prior cardiac history. The TEE study was performed with the patient in the fasting state using topical pharyngeal anesthesia (20 percent benzocaine) and intravenous sedation (1.0 mg of midazolam, 25.0 mg of meperidine, and 0.2 mg of glycopyrrolate). Prior to the procedure, the patient was placed on telemetry, which revealed a normal sinus rhythm. Upon insertion of the TEE probe (Acuson 128-XP transesophageal probe with a 5-MHz transducer), the rhythm changed to atrial fibrillation with rapid ventricular response. Since the patient remained hemodynamically stable, the TEE study was completed, and no potential sources of embolism (eg, left atrial clot or spontaneous echo contrast) were found. The rhythm was confirmed by 12-lead electrocardiogram. The patient was subsequently placed on a regimen of digoxin and procaainamide and converted to normal sinus rhythm within 48 h.

The precise etiologies for development of atrial fibrillation remains unclear. It is possible that our patient experienced paroxysmal atrial fibrillation or that the stress of the procedure induced this rhythm. Administration of glycopyrrolate (an anticholinergic agent) could have also caused the onset of atrial fibrillation. Also possible is stimulation of the atrium by passage of the TEE probe; the extremely low incidence of atrial fibrillation during TEE would make this unlikely, however.

In summary, atrial fibrillation should be recognized as a potential complication of TEE, and continuous monitoring of ECG rhythms during this procedure is absolutely necessary.

**REFERENCES**


**Ice Fishing as a Risk Factor for Pulmonary Emboli**

*To the Editor:*

A well-known risk factor for pulmonary emboli is mobilization after a sedentary period, such as walking following an airplane flight. This case report describes the novel association of acute pulmonary emboli with a fall on the ice after 2 days of ice fishing.

A 48-year-old previously healthy male smoker spent 2 days in a predominantly seated position, watching ice-fishing traps via closed circuit television in a winter camp. On the second day, while tending a trap, he slipped and fell hard on his left buttock onto the ice. He presented 1 week later with complaints of 1 week's duration of anterior and right lateral pleuritic chest pain, nonproductive cough, and mild dyspnea. On the day of admission he had scant hemoptysis of old blood.

His physical examination was remarkable only for coarse breath sounds bilaterally. His chest radiograph was normal. The arterial blood gas values on room air were as follows: pH, 7.53; PaCO2, 35 mm Hg; PaO2, 51 mm Hg; HCO3−, 29 mmol/L; oxygen saturation, 90 percent; F(A-a)O2, 57. The ventilation-perfusion lung scan showed multiple, bilateral, wedge-shaped segmental and subsegmental mismatches, consistent with a high-probability study for pulmonary emboli. The chest radiograph on hospital day 3 was without infiltrates or effusions. The patient had no other risk factors for pulmonary emboli, including recent surgery, obesity, diabetes mellitus, long travel, carcinoma, phlebitis, leg discomfort, previous thrombotic disease, or trauma to the legs.

This case report describes the novel association of pulmonary emboli with ice fishing, presumably caused by abrupt, jarring activity disturbing recently formed thrombi in the leg and/or pelvic veins, resulting in their embolization. Ice fishing is an activity known for long periods of relative inactivity if the traps are attended from a sheltered site, as in this case. This patient's fall to the ice likely caused peripheral thrombi to embolize. Alternatively, this patient's pulmonary emboli may have been caused by squatting, which might be expected to cause an abrupt change in the venous return, which was first decreased and then increased, predisposing to dislodgment of a thrombus. A Valsalva maneuver while tending the traps in a person with a transiently patent foramen ovale might cause a paradoxical systemic embolus via a transient increase in right-sided intracardiac pressures.

For the ice fisherman, more frequent attention to one's "tip-ups" may be preventive of pulmonary emboli.

**Expectoration of an Occult Foreign Body Six Asymptomatic Years After Aspiration**

*To the Editor:*

Occult foreign body (FB) aspiration can remain undetected for as long as 40 years.1 Errorneous diagnoses have been reported as a result,2 with removal by bronchoscopy indicated.3 We report the occult aspiration of a gold tooth crown, detected 5 years later on a chest radiograph. This FB was spontaneously coughed up a year later, with no antecedent symptoms or complications.

A 66-year-old man went to his physician after having coughed up a dental crown, which he thought he had swallowed 6 years earlier. He did not recall any symptoms, and figured that the crown would "pass out" via his gastrointestinal tract. Five years later he underwent inguinal hernia repair, at which time an FB was noted on a chest radiograph (Fig 1). The FB could not be extracted by rigid