undergoing evaluation of clinically-suspected malignant pericardial effusion. A rigid mediastinoscope was used for inspection of the posterior and lateral pericardial surfaces. A flexible bronchoscope was used in one patient to evaluate the anterior pericardial space.

We have reported our results with flexible fiberoptic pericardioscopy in seven successive patients with large pericardial effusions of unknown obvious etiology. A subxiphoid incision was made in the operating room. The pericardial effusion was drained and a flexible Olympus BF type 4B2 bronchoscope was inserted. We were able to visualize all pericardial and epicardial surfaces except in one patient, where the scope could not be passed due to the presence of dense pericardial adhesions secondary to sarcoid pericardial disease.

In contradistinction to Little's study, we encountered little difficulty in obtaining clear views of the pericardial surfaces. Suctioning through the scope was not difficult.

Our patient population also differed. We studied two patients with positive purified protein-derivative skin test results and a history of malignancies. In one patient, a tuberculous etiology was the cause of the effusion. In the second patient, adenocarcinoma of the lung was the cause of the effusion.

Because of our small series of patients, the limited variety of diseases, and the limitations of the scope system we were able to conclude that pericardioscopy appears to be a safe procedure and has the potential to allow distinction among benign, malignant and tuberculous causes of effusion. Our diagnostic capabilities may be aided with improvement of the scope system such as the adjustment of the depth of field of view to allow for sharp visualization and the ability to view through liquid media.

The ultimate clinical utility of pericardioscopy seems to be in patients with pericardial disease and an underlying malignancy in which approximately 50 percent of this patient population may have a nonmalignant pericardial effusion. In both studies there were no patients with lymphomas where analysis of the pericardial effusion with respect to cytology is usually nondiagnostic. Pericardial biopsy sampling usually reveals diagnostic information; however, it seems that selective pericardial biopsy sampling would further increase the diagnostic yield.

The role of pericardioscopy remains to be clearly defined; however, we agree that it appears to be a safe technique and adds to our diagnostic capabilities in patients with a variety of pericardial disorders. The use of flexible fiberoptic pericardioscopic study further allows adequate visualization of all pericardial surfaces.

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REFERENCES
1 Little AG, Ferguson MK. Pericardioscopy as adjunct to pericardial window. Chest 1985; 89:53-55

To the Editor:

We appreciate Dr. Kondos and colleagues drawing our attention to their experience with flexible fiberoptic pericardioscopic exami-

Successful Transthoracic Drainage of Infected Traumatic Pneumatocele

To the Editor:

Acute traumatic collections of air within the lung, traumatic pneumatoceles, usually have a benign clinical course. Secondary infection is rare but, when unresponsive to antibiotic therapy, has previously necessitated thoracotomy and pulmonary resection.

A 21-year-old male recently presented with a traumatic pneumatocele (Fig 1) from a motor vehicle accident. Unrelenting pseudomonas sepsis, despite antibiotic therapy, occurred a week later. CT-guided dependent drainage of the pneumatocele with a No 36 French chest tube was performed under local anesthesia. Culture of the seropurulent contents of the pneumatocele confirmed pseudomonas. Because of a large air leak and tension pneumothorax, a second pleural chest tube was inserted. Respiratory support and antibiotic therapy were necessary adjuvants. The patient's recovery was prompt. Continued drainage, unrelenting sepsis, or persistent air leak would have necessitated open drainage or resection. We recommend a smaller chest tube be inserted into the pneumatocele and a pleural chest tube inserted prophylactically in future cases.

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