was demonstrated "water-lily" graph nary CT but we ventilator problem. To Diagnosis Is level balloon patient whether or automatic save the more process. they slow Though A 33-year-old number radiologic problem. Of Hydatid cyst,2 many nodular lesions when inadvertent hyperventilation due to this autotriggering process. The autotriggering of pressure support breaths is a much more insidious problem than autocycling of volume breaths since the pressure support can mimic a normal breathing pattern even when autocycling. The approach we have taken to combat this is to include in our ventilator check procedure the action of turning the sensitivity up to five centimeters. If the respiratory rate slows and the therapist can observe no weak, nontriggering efforts, but instead a slow steady pressure drop, then we know have autotriggering and seek the cause and eliminate it. (Though when the cause is a balloon pump instead of a leak, there is little we can do about it save turn up the sensitivity).

Ideally, Bennett should work towards solving the autotriggering problem by enabling the ventilator to distinguish between a leak and an effort, but in the meantime, if they are going to start terminating the breath at 5 sec, I feel that they should make the ventilator beep every time it does this. It takes a very substantial leak to keep the 7200a from cycling out of inspiration and I think we are entitled to an alarm. Of course, the enormous and probably audible flow emanating from the leak itself should also help locate the problem. The much bigger problem, I feel, is the smaller leaks which have no significant effect on the termination of inspiration, but which cause autocycling. (I should mention that the flow at failure to terminate is greater than 5 Lpm since the 1.5 cm over PS level backup comes into play when the patient exhales.)

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Is CT Useful in the Unequivocal Diagnosis of Hydatid Cyst on a Chest X-ray Film?

To the Editor:

Though CT has been recommended for the diagnosis of pulmonary hydatid cyst,1,4 its potential usefulness when the chest radiograph unequivocally shows a hydatid cyst has not been adequately addressed. We wish to discuss this point in light of a recent experience.

A 33-year-old woman presented with intermittent fever, cough, and expectoration of four years' duration. Chest radiographic and CT examinations revealed the pathognomonic "double arch" and "water-lily" signs of a ruptured hydatid cyst (Figs 1 and 2); CT also demonstrated additional nodular lesions in both lungs. The patient was advised to undergo surgery but declined and was lost to follow-up.

A number of radiologic signs of the ruptured hydatid cyst have been described. These include the "crescent", "water-lily", "daughter cyst" and "double arch" signs. Many of these have been demonstrated on CT1,4 with the exception of the "double arch" sign. In this patient, the chest radiograph showed the typical "double arch" sign—namely, air outlining both the pericyst (straight arrows) and the endocyst (curved arrows). Rest of the lung parenchyma is apparently normal.

FIGURE 1. Chest radiograph showing the typical "double arch" sign. Air outlines the pericyst (straight arrows) and the endocyst (curved arrows). Rest of the lung parenchyma is apparently normal.

FIGURE 2. CT demonstrating the "double arch" sign with consolidation in the surrounding lung. Two endocysts are identified within the cavity. The fluid at the bottom has an uneven level due to the floating collapsed endocysts ("water-lily" sign). Multiple small nodules can be seen in the right lung; additional nodules were seen in both lungs in other sections.

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Constrictive Pericarditis

To the Editor:

The report of Dr. Fischbein and colleagues relating constrictive pericardial physiology to calcified pericarditis associated with asbestos exposure (Chest 1988; 94:646-47) recalls a patient we cared for who may have had constrictive pericarditis from non-calcified pericardial involvement attributed to asbestos. A 38-year-old man was hospitalized for cardiac catheterization following six months of dyspnea on exertion, fatigue and orthopnea. There was a history of asbestos exposure from 20 years of work as a marine machinist in a shipyard. His father had asbestososis. A routine chest x-ray film obtained ten months prior to the onset of symptoms revealed bilateral mid-chest pleural thickening consistent with benign asbestos-related pleural disease. Shortly after the onset of symptoms, chest radiographic examination revealed small bilateral effusions with a normal cardiac silhouette. Outpatient thoracentesis with simultaneous pleural biopsy revealed transudative fluid. Pleural biopsy was reported to show chronic inflammation and fibrosis. Echocardiography performed on two occasions was essentially unremarkable. Therapy with oral diuretics failed to result in significant symptomatic or radiologic improvement. Two months prior to admission, he underwent left thoracotomy at which time bilateral pleural plaques and plaque formation involving the majority of the pericardium were noted intraoperatively. The pericardium was left intact. A biopsy of the parietal pleural plaque showed fibrohyaline plaques consistent with benign asbestos-related pleural disease. He was seen in consultation postoperatively and continued to have persistent pleural effusions with no improvement in his symptoms. Examination prior to cardiac catheterization revealed jugular venous distention, bilateral lower lung field dullness with decreased breath sounds, and a pericardial knock. Cardiac catheterization suggested classic constrictive pericarditis. Pressures were: right atrial 20 to 22 mm Hg, right ventricular 35 to 40/20 mm Hg, pulmonary artery 35 to 40/20 to 22 mm Hg, and wedge 20 to 22 mm Hg. Percardiectomy was performed, at which time a thickened pericardium was found enveloping most of the heart. Pathologic examination showed fibrosis and chronic inflammation. Asbestos bodies were not seen. The patient has had no recurrence of his pleural effusions since resolution following surgery.

Intraoperative pleural and pericardial findings and history of asbestos exposure suggest pericardial constriction on the basis of benign asbestos pericardial thickening. Unlike Dr. Fischbein's findings, calcification of the pericardium was not present. We cannot exclude and do not believe Dr. Fischbein's findings excluded viral or so-called idiopathic pericarditis as the etiology of pericardial disease. Additional cases will be needed to confirm an association of chronic constrictive pericarditis with asbestos exposure.

Olympus BF-1T20 Fiberoptic Bronchoscope and a Flexible 18 Gauge Transbronchial Aspiration Needle

To the Editor:

We recently completed a clinical investigation involving the use of flexible transbronchial aspiration needle (TBAN) to obtain specimens for histologic examination. During this investigation, we studied and compared use of the 18 and 22 gauge flexible TBAN (Millrose-Wang) for specimen retrieval.14 Our equipment included two Olympus fiberoptic-bronoscopes (FOB): models BF-1T10 and BF-1T20.

The BF-1T10 and BF-1T20 are FOB which feature high-resolution optics with a wide-angle lens system; the BF-1T10 has a 90° field of view and the BF-1T20 has a 100° field of view. Both are waterproof and may be completely immersed. The 6 mm insertion tube of the BF-1T10 incorporates a 2.6 mm instrument channel, while the 6 mm insertion tube of the BF-1T20 incorporates a 2.8 mm instrument channel. Interestingly, we noted that (unlike the BF-1T10) the BF-1T20 did not allow free passage of the 18 gauge needle.

Despite seemingly comparable qualities for maximum versatility and performance of these instruments, it is actually the difference in design of the control sections which causes difficulties. On the BF-1T20, the angle of the biopsy port of the control section is more acute than that of the BF-1T10, thereby not allowing passage of the 15 mm nonretractable metallic portion of the 18 gauge needle.

We conclude that the Olympus BF-1T10 and the BF-1T20 are fine quality instruments and both permit easy insertion of the 22 gauge TBAN. However, one should be aware that the BF-1T20 cannot incorporate the 18 gauge TBAN for specimen retrieval during diagnostic evaluations. We believe this to be of importance for those physicians who are involved in the use of transbronchial aspiration needles and are contemplating the purchase of a new FOB.

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REFERENCES

To the Editor:

The histology needle passes freely through the suction channel of any OES 10 series bronchoscope. It can be advanced only a few cm in the BF-1T20; this is because the channel's radius of curvature is smaller than the BF-1T10. This change was made so that the BF-1T20's new "no-leak" suction valve could be placed at a comfortable angle for the operator's hand. The needle advances without any problem in our new OES 20D series bronchoscopes. The OES 20D series biopsy valve is separate from the suction control and located 18 cm distal to the eyepiece. The angle of insertion is very smooth.

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