every time the test result is positive in the presence of pneumonia?" Only time and more data will answer this question.

Dominguez et al also note that their group 2 patients with a presumptive diagnosis of pneumococcal pneumonia seen in Table 2 might not all be due to Streptococcus pneumoniae, leading to the possibility of overreliance on this data to determine sensitivities that would keep them lower. This may be true as the phrase presumptive suggests but the diagnostic criteria for the S pneumoniae diagnosis are not too shabby. All diagnoses in Table 2 were supported by either a positive sputum culture finding and/or latex agglutination finding for detecting S pneumoniae in the sputum and chest radiography findings consistent with pneumonia. Of the sputum culture results that were positive (13 of 16), all except one were supported by at least one other positive test result consistent with S pneumoniae (excluding radiography). Two indicators of the same diagnosis significantly increase the likelihood of being correct. Of the latex agglutination test results positive for S pneumoniae in the sputum (12 of 14), only two were not supported by at least one other test result (excluding radiography) consistent with S pneumoniae. The false-positive rate for latex agglutination detection of S pneumoniae in sputum has been described as about 6%, making it possible but unlikely that some of the positive results from this test are not true, particularly if other tests are consistent with the same diagnosis. In addition, the sensitivity for latex agglutination detection of S pneumoniae in the sputum of patients with S pneumoniae has been described as 86%, which is identical to the sensitivity seen in Table 2 of this study (12 of 14). Therefore, the diagnosis of S pneumoniae in the group 2 patients in the study is fairly solid and a tribute to the authors in being wise enough to attempt to document this pneumonia by a variety of methods.

Finally, we all agree that this study is a significant step forward in the attempt to make a diagnosis of S pneumoniae in a timely matter. I congratulate the authors on a very interesting study.

Gene R. Pesola, MD, MPH
Mailman School of Public Health
New York, NY

Correspondence to: Gene R. Pesola, MD, MPH, Divisions of Epidemiology and Biostatistics, Mailman School of Public Health, Columbia University at 168th St, 600 W. 68th St, Ph. 18, New York, NY 10032

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Pulmonary Artery Stenosis and Fibrous Mediastinitis

To the Editor:

We read with interest the report by Guerrero and colleagues (March 2001), describing treatment of pulmonary artery stenosis in a patient with fibrous mediastinitis. Unique safety issues are present and should be addressed when considering intravascular stents for pulmonary vascular compromise caused by fibrous mediastinitis, also known as mediastinal fibrosis. Unlike most other causes that occlude only the pulmonary arteries, such as pulmonary embolism, mediastinal fibrosis may concomitantly affect pulmonary veins, airways, or arteries of one or both lungs, in any combination. Benefit would not likely ensue from the restoration of arterial blood flow to a lung that has an obstructed airway, and could even cause severe shunting. Alternatively, restoring flow through the pulmonary artery of a lung in which pulmonary veins are also obstructed could lead to pulmonary edema. Pulmonary venous occlusion, especially in the presence of concomitant arterial occlusion, can be difficult to verify and should be meticulously evaluated by specialized techniques, such as balloon wedge angiography and measurement of pressure gradients. Since disorders causing large pulmonary vein occlusion are uncommon in adults, those individuals with the most experience using relevant diagnostic approaches are often invasive pediatric cardiologists who commonly encounter congenital pulmonary venous disorders.

The authors underestimate the prevalence of mediastinal fibrosis. They report that only fifteen other cases of fibrous mediastinitis with pulmonary artery compression have been described in the literature. In one review more than a decade ago with 71 reported cases of mediastinal fibrosis, pulmonary vascular involvement was described for 40 patients. Underreporting probably occurs at present because the condition has already been adequately described.

In the "Discussion" section, the authors state, "patients with fibrous mediastinitis generally have a benign clinical course until a mediastinal structure is compressed," a statement that raises the issue of the definition of mediastinal fibrosis. Although there is not a universally accepted definition, it surely should not include all patients who have any fibrosis within the mediastinum. A reasonable definition also requires the involvement of a major vessel or airway, so as to distinguish patients with true mediastinal fibrosis from patients with inconsequential limited scarring. Our experience in the last decade with several dozen patients has demonstrated that those with unilateral autoamputation of one lung by mediastinal fibrosis usually have a relatively benign course, even for many decades.

Exceptions to this observation include the few patients in whom serious hemoptysis from systemic vascular hypertrophy to the obstructed lung develops.

The character of the mediastinal fibrosis lesion is so dense, ie, typically described by a surgeon as having the consistency of concrete, it is surprising that balloon dilation and stenting can successfully restore vascular patency in this condition. For our first case using pulmonary venous stents for a young man with bilateral pulmonary venous obstruction from mediastinal fibrosis, because we suspected the fibrotic veins were too rigid to successfully dilate, we were prepared to use a Rotablator tissue extraction device (Boston Scientific; Natick, MA), but were pleased to learn that it was not required. Our experience is similar to that of the authors, with successful stenting of seven vessels (four pulmonary arteries and three pulmonary veins) in four patients with mediastinal fibrosis.

Further emphasis regarding different causes of mediastinal fibrosis is also important, as discussed by Sherrick et al in reference 5 of the authors. The patient in the current report has mediastinal fibrosis typical for that which occurs as a late complication of histoplasmosis, because it is focal, lymph node-based, calcified, and invasive. Despite the authors' suggestion that steroids may be helpful here, this condition has never been shown to respond to steroids or any other medical therapy. In contrast, another form of mediastinal fibrosis may have features that resemble retroperitoneal fibrosis and is characterized by...
noncalcified, diffuse disease, which usually encompasses the entire trachea and may even extend outside the thorax to be palpable in the neck. This form of mediastinal fibrosis should be distinguished because it does appear to respond to corticosteroids or tamoxifen, at least in several published case reports.

We believe that attempts to stent vessels to palliate disease are clearly indicated in patients with bilateral pulmonary vascular disease from mediastinal fibrosis, in whom the outcome is universally poor and operative reconstruction risk is high. Stenting of vessels for patients with unilateral disease may be appropriate, but the risk/benefit ratio is less clear because many of these patients may have prolonged survival with acceptable functional status. Indeed, their functional status may be analogous in many respects to that of a single lung transplant recipient.

Another consideration should include the possibility that the relative risk of a stent for a pulmonary vein (compared to that for a pulmonary artery) may be higher, because a stent complication of thrombosis might cause systemic embolism, and thereby possibly jeopardize extrapulmonary structures.

Finally, we were disappointed that the authors or reviewers did not use this opportunity to include any discussion regarding the physiologic mechanisms of dyspnea in their interesting patient or why the procedure might be associated with its resolution.

Ivan M. Robbins, MD
Angela M. Davis, MD
Thomas P. Doyle, MD
James E. Loyd, MD
Vanderbilt University Medical Center
Nashville, TN

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To the Editor:

I would like to thank Drs. Robbins, Davis, Doyle, and Loyd for their interest in our article. Briefly, we felt confident, based on echocardiography and CT review, that the pulmonary veins were not involved in our patient, and bronchoscopy documented that the right mainstem bronchus was patent. We suspect that the patient’s improvement was due to a combination of reduced dead-space ventilation and some reduction in right-heart strain. The authors have succinctly reviewed the topic as well as their experience in stenting. We agree that each patient’s workup must be thorough and treatment individualized. Institutionally we managed two more patients in this manner, including one referred after a failed stent. Clearly, although more experience needs to be gained, interventional approaches are becoming recognized as a valuable tool in the management of these complex cases.

Riyad Karmy-Jones, MD, FCCP
University of Washington School of Medicine
Seattle, WA

Complications Following Percutaneous Tracheostomy

To the Editor:

We were interested to read the article by Briche et al. (April 2001) concerning complications following percutaneous tracheostomy. However, in both cases, we are simply told “percutaneous tracheostomy was performed.” There was no comment as to whether or not the procedure was aided by a separate operator performing simultaneous fiberoptic bronchoscopy of the trachea. The complication rate of percutaneous dilatational tracheostomy may be reduced using endoscopic guidance, since experience does not seem to reduce the incidence of paramedian wire insertion. The study of Dexter, assessing blind wire placement, found that only 45% of wires entered the trachea at the intended level, 30% of wires pierced the thyroid isthmus, and only 15% of wires punctured the trachea centrally.

The proposed mechanism of stenoses in the two cases (a difficult perforation of the trachea causing fracture of the tracheal ring, thus creating an intraluminal tracheal flap) would surely have been noted if the fiberoptic bronchoscope had been used. We would advocate the use of bronchoscopy in all cases of percutaneous dilatational tracheostomy in order to minimize immediate and long-term complications resulting from this valuable bedside technique.

Sarah Hedges, MBBS
Vincent Perkins
Dunfries and Galloway Royal Infirmary
Dunfries, United Kingdom

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To the Editor:

For 4 years, we have performed bedside percutaneous tracheostomy with two physicians, always with the same procedures.