of which we were unaware. However, after reviewing the article, we can only speculate that some of their procedures might have been done on outpatients.

We did not use the Mosher bag and therefore cannot comment on its efficacy. We used a post-dilation contrast study to view possible complications and not to assess clinical efficacy as done by Ott et al. This was in our initial protocol and its value may be to make the clinician feel more secure. We agree that these patients must be followed on clinical grounds. If chest pain is present, further contrast studies are indicated. We would agree that initial medical management should be employed for a select few who have small localized perforations.

There are no controlled studies to date which have examined the use of different techniques of dilations, e.g., ablation of waist of balloon versus time of balloon inflation. Therefore, commenting on an association of complication rate with technique at this point remains speculative. We are presently participating in a multicenter study of these techniques.

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REFERENCES
1. Ref. 1 above.
2. Ref. 4 above.

Pneumatic dilation for achalasia: in- or outpatient?

To the Editor:

We read with interest the article by Barnett et al. regarding pneumatic dilation for achalasia. We too have used this technique successfully in over 30 patients in the last 5 years but with the Rider Moeller pneumatic dilator. In the past 18 months our experience has been extended to the use of the Witzel pneumatic dilator in relieving achalasia in another six patients. Furthermore, we have carried out the procedure on an inpatient as well as outpatient basis. However, the aspects of this article that concern us are the lack of important clinical information regarding the patients’ general condition and the authors’ criteria for selecting inpatient or outpatient treatment. Although endoscopy and associated therapeutic procedures are considered safe and often an effective alternative to surgical intervention, we believe it is important that the potential hazards of therapeutic endoscopy are not overlooked in patients with intercurrent medical problems. We have recently encountered an “unexpected” incident after successful dilation of achalasia using the Witzel dilator and would like to report this case to illustrate our concerns about patient safety and selection.

A 69-year-old man with radiologically proven achalasia was admitted for endoscopic balloon dilation in January 1990. He had a significant past medical history of myocardial infarction, peripheral vascular disease, and recurrent thrombo-embolic disease requiring long-term anticoagulation. He was also on a calcium antagonist and a trinitrate preparation for the treatment of angina. Warfarin was dis-continued 2 days before the therapeutic pneumatic dilation which was undergone without adverse effect. Anticoagulation was recommenced later that day and his anti-anginal medications were continued as before. He was found collapsed the following day (16 hours after the procedure) and cardiorespiratory resuscitation was commenced immediately but to no avail. He eventually succumbed and subsequent postmortem examination revealed significant coronary artery atheroma and a fibrotic area in the posterior myocardial wall suggesting old myocardial infarction, but there was no acute myocardial damage. Furthermore, there was no evidence of recent pulmonary emboli. He was presumed to have died from an acute cardiac arrhythmia and the cause of death was recorded as ischemic heart disease.

Obviously, it would have been inappropriate to perform such a procedure on a patient with the aforementioned past medical history as an outpatient: in this case, even despite inpatient care, the outcome was fatal. However, the decision to treat similar cases as inpatients or outpatients becomes more difficult with individuals who perhaps have more subtle risk factors. Should this important decision be made purely on clinical appraisal of the individual patient or should there be well-defined criteria regarding suitability for outpatient treatment? Therefore, we would like to add this cautionary note to the proclaimed absolute safety record of pneumatic dilation in achalasic patients as reported by Barnett et al. Although we now live in the age of cost-efficiency drives, we must still endeavour to maintain the excellent track records of endoscopic procedures without sacrificing safety.

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REFERENCE

Response

We note with concern the death described by Drs. Greer and Ching which occurred after successful dilation for achalasia using the Witzel dilator. They raise the important issue of inpatient versus outpatient follow-up care after the performance of a potentially risky procedure such as pneumatic dilation. Although no deaths occurred in our series, we certainly did not describe an “absolute safety record” in our patients. We clearly detailed in both the text and Table 1 a 4% incidence of perforation and a 7% incidence of prolonged chest pain. Although both of our patients with perforation underwent dilation at a time when we routinely admitted patients for overnight observation, both had persistent chest pain within 6 hours of the procedure that would have precluded discharge from our outpatient area. Although the death of the patient described by Drs. Greer and Ching occurred within 16 hours of the pneumatic dilation, the relationship between the procedure and the death in the case is unclear to us. Furthermore, as they point out, this patient died despite observation as an inpatient. However, we too share their concern for patient safety following
endoscopic procedures as medicine continues to move from an inpatient to an outpatient discipline. When a potential complication commonly occurs within several hours of a procedure, it is usually appropriate and cost effective to observe the patient in a recovery area and avoid an overnight hospitalization. For example, witness the recent trend of performing liver biopsy as an outpatient procedure. Within the last year, even cholecystectomy has been performed as an outpatient procedure! In most cases, we believe it is difficult to establish absolute inpatient or outpatient guidelines following a procedure such as pneumatic dilation. Certainly an elderly patient or a patient with selected medical problems should be admitted for at least overnight observation. It is our policy to perform the procedure on an outpatient basis only at the discretion of the attending physician and with an observation period of several hours (usually a minimum of 4 hours). Even then, as stated in our article outpatients are required to stay overnight in the local area so that rapid follow-up is possible if complications occur.

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Perforation rate in achalasia with polyethylene balloon dilators

To the Editor:

The pneumatic dilator is currently considered the initial therapy of choice for achalasia.

A number of types of dilators have been used over the years, including the Browne-McHardy dilator (which consists of a mercury tube with a silk bag at the distal end), the Mosher bag (a similar device), the Sippy dilator (which requires the use of a guidewire), and, more recently, the Microvasive Rigiflex Achalasia dilator (Microvasive/Boston Scientific Corp., Watertown, Mass.) (a polyethylene balloon similar to the type used in coronary angioplasty). Currently, only the latter is commercially available. Most centers prefer it because of its long shelf-life, availability in different sizes, and ability to be placed over a wire.

We undertook a retrospective study of patients who underwent balloon dilation for achalasia at the Beth Israel Hospital in Boston over the last 6 years. A total of 94 dilations in 72 patients were identified. Of these, 58 were performed with the Browne-McHardy dilator, 22 with the Rigiflex, and 12 with the Mosher bag (2 dilations were performed without reference to the type of dilator in the chart). In the 94 dilations, 5 perforations occurred (5.3%) (defined as extravasation of contrast on Gastrografin® swallow after the procedure). As a matter of course, all patients who have undergone balloon dilation are admitted to the hospital, an immediate post-procedure chest film is obtained, and a Gastrografin® study is performed 4 to 6 hours later.

The striking finding was that four of the five perforations occurred after dilation with the Rigiflex balloon, two of which required thoracotomy. There were no procedure-related deaths. Only one perforation occurred after dilation with the Browne-McHardy or Mosher bag. No other factor could be identified as an independent variable, including number of dilations, size of dilator, duration of inflation, or other factors such as Candida esophagitis, paraesophageal diverticula, or hiatal hernia. This observed high perforation rate could be related to the fact that, at least in our experience, there is considerably more blood coating the Rigiflex balloon than observed with the even larger diameter Browne-McHardy dilator.

To date, there is no other report of a higher perforation rate with the newer balloons. Richter et al. compared 11 patients dilated with Rigiflex balloons prospectively and found no difference with matched controls dilated with Browne-McHardy dilators in terms of efficacy and complications. Gelfand and Kozarek examined 24 patients treated with Rigiflex dilators and had no complications. A recent study by Barkin et al. had two perforations in 50 patients dilated exclusively with Rigiflex balloons.

The reasons for the higher perforation rate and bleeding with the Rigiflex dilator are not known. We think that the rigidity of the polyethylene balloon of the Rigiflex dilator compared with that of the rubber balloon of the Browne-McHardy may somehow play a role in the observed complication rate.

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REFERENCES


Endoscopic removal of a large gastric polyp

To the Editor:

Endoscopic snare resection of adenomatous gastric polyps has been routinely performed since the early 1970s because of the high incidence of malignant changes (1.4 to 66.5%). Some endoscopists consider the size of the polyp to be a limiting factor. We successfully performed the endoscopic removal of a very large sessile gastric adenoma.

A 74-year-old woman presented with dyspeptic symptoms and iron deficiency anemia (hemoglobin, 10 g/dl). X-ray examination of the upper gastrointestinal tract revealed the