Letters to the Editor

Tracheobronchial remnants accidentally found in the esophagus and adenocarcinoma with Barrett's esophagus

To the Editor:

Barrett's esophagus¹ is the term applied to the columnar-lined esophagus that is the result of a long history of gastroesophageal reflux² and also a prevalent site of adenocarcinoma. Tracheoesophageal fistula associated with Barrett's ulcer has been reported³ as a result of an erosive process, but our case is different.

A 67-year-old woman was operated on for esophageal cancer. Esophagogastrectomy and reconstruction with the right hemi-colon and ileum were done. The postoperative course was uneventful, but she died of a recurrence. An autopsy was not performed.

The patient had been treated for pneumonia at the ages of 10 and 34 years and also had a history of recurrent episodes of regurgitation on swallowing since childhood. She had had chest tube drainage for left-sided empyema but had no history of hiatal hernia. The macroscopic appearance of the specimen is shown in Fig. 1, with the probe in the blind fistula. Histologic examination of the fistula revealed the epithelium at the orifice lined by epidermoid cells switching over to columnar cells with cilia. The fistula then ended blindly. The small tumor (arrow) at the edge was found to be a bronchial cyst. Tracheobronchial remnants such as cartilage and gland were also found in the

specimen (Fig. 2). The lower part of the esophagus was invaded by the adenocarcinoma but the site of the fistula was not involved.

This case is typical with regard to the following points: The orifice of the blind fistula was lined with epidermoid cells. Remnants of the tracheobronchial element and the history of repeated regurgitation and vomiting in childhood are strongly suggestive of congenital abnormalities in tracheoesophageal development. The concept of bronchopulmonary foregut malformation is now established,⁴ and variable types of the disease have been reported.⁵ Repeated coughing and vomiting in infancy are common symptoms. The degree of malformation was so mild that bronchopulmonary foregut malformation might not have been suspected when she was a girl. However, it is reasonable to conclude that the foregut malformation accompanied by repeated vomiting were responsible for the development of Barrett's esophagus, which later progressed to carcinoma.

Noriaki Tsubota, MD
Masahiro Yosimura, MD
Akihiro Murotani, MD
Yosifumi Miyamoto, MD
Maniwa Miyamoto, MD
Hyogo Medical Center
General Thoracic Department
Akashi 13-7 Kitaoji
Hyogo, Japan

Fig. 1. Macroscopic appearance of the specimen, with a bronchial cyst (arrow).

Fig. 2. Photomicrograph showing tracheobronchial remnants such as cartilage and gland.

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Echo-free perfused spaces: A current postoperative finding after homograft replacement of the aortic valve

To the Editor:

Homograft replacement of the aortic valve is a recognized procedure in the surgical treatment of aortic valve disease. It offers some solutions and improvements for the problems encountered after prosthetic valvular replacement: better hydraulic performance (even in small sizes), reduced thromboembolic complications, resistance to infection, and acceptable valve durability. Main indications for homograft valves include aortic valve replacement during active endocarditis, aortic root abscess with annular destruction, and aortic valve replacement in young patients and women of childbearing age. Homograft implantation is also a valid alternative to use of a bioprosthesis in patients in whom anticoagulants are contraindicated. With

the widespread use of homografts, associated complications have become apparent. Recent reports include dynamic obstruction, degenerative and infective processes, and pseudoaneurysm formation.¹⁻³

Recently, all our patients who received a homograft in the aortic position between 1991 and 1993 were evaluated by transthoracic or transesophageal echocardiography, or both. The aim of this small report is to draw attention to a current postoperative finding, which consists in a perfused echo-free space, observed by Doppler echocardiography between the aortic homograft and the aortic wall. Postoperative echocardiographic results were analyzed in a series of 20 consecutive patients (mean age 47.5 years, range 26 to 57 years) with replacement of the aortic valve; 15 patients (75%) were found to have one or several small perfused echo-free spaces by Doppler echocardiography. No difference was found between the group of 15 patients with and the group without (five patients) perfused spaces regarding the diameter of the homograft (23 versus 22 mm) and the postoperative mean systolic pressure gradient (14 versus 9 mm Hg). No other significant hemodynamic changes were seen in the presence of echo-free perfused spaces, especially no obstruction of the left ventricular outflow tract. Preoperative infection of the aortic root and anulus was more frequent in patients having echo-free perfused spaces than in patients without endocarditis.

The location of the echo-free perfused space corresponded with the previous location of the abscess/perivalvular leak in seven of nine cases. In all cases, continuous wave Doppler echocardiography demonstrated two distinct systolic jets, one through the valve homograft and another through the proximal suture line into the perfused recesses. Fig. 1 summarizes the main findings of an echo-free perfused space after homograft replacement of the aortic valve. Although no significant difference was noted in the technique of implantation (composite tube/valve homograft or single homograft), echo-free perfused spaces were more frequently observed after multiple previous