Endoscopic Treatment for a Gash in the Esophagus Caused When Inserting the Overtube During Esophageal Variceal Ligation

We encountered a case of a large gash in the esophagus caused by insertion of the overtube during esophageal variceal ligation (EVL). The patient, a 66-year-old man, had esophageal varices as a complication of liver cirrhosis and hepatocellular carcinoma. Esophageal variceal ligation (1) was chosen as an appropriate form of treatment for the varices.

During the third treatment, a large gash was caused just on the distal side of the upper esophageal sphincter, accompanied by bleeding (Figure 1a). A transparent outer cylinder was attached to the head of the EVL endoscope. The endoscope was inserted into the gash, and both sides of the tear were sucked into the outer cylinder. Four clips were placed on the ulcer line from distal to proximal along the gash in the esophagus, and the gash was sutured (2) (Figures 1b,2). The patient experienced no complaints such as fever or chest pain after the treatment. No abnormal gas was recognized on chest radiographs that

day or the next day. Three days after the treatment, an upper gastrointestinal examination with meglumine contrast (Gastrografin) showed no leakage. Seven days after the treatment, all of the clips were still in place on the sutured ulcer line, which, as endoscopy showed, was still securely closed. After four months, there were no clips on the gash, and a small scar was seen (Figure 1c). The esophageal varices had also completely healed.

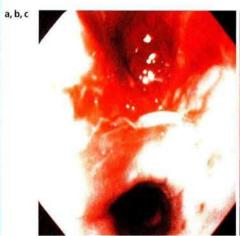
EVL is generally said to cause fewer complications than endoscopic injection sclerotherapy (3), but there are have been some reports in the literature recently concerning risks associated with EVL, such as a gash in the esophagus on inserting the overtube (4). Complications such as gashing and perforation are thought to be due to pinching of the esophageal mucosa in the gap between the endoscope and the overtube (5). The overtube should therefore be inserted very carefully. However, if a gash does occur

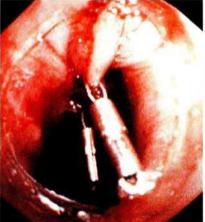
during an EVL procedure, the technique of suturing using clips is very useful.

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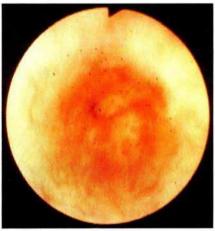
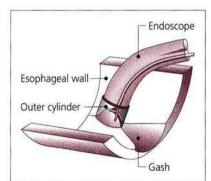


Figure 1a: A large gash caused just on the anal side of the upper esophageal sphincter, accompanied by bleeding. b Four clips were placed in the line of the gash in the esophagus from distal to proximal, and the gash was sutured. c Only some scarring is evident four months after the clipping.

a, b



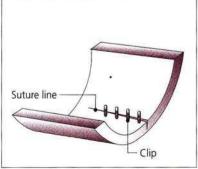


Figure 2a: The outer cylinder was attached to the tip of the endoscope, and the gash was sutured with clips by sucking in the esophageal mucosa. b The gash was closed with the clips.

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