

### A New Multipurpose Tube for Esophageal Endoscopy

In some types of endoscopic examination and treatment, the esophagus can be difficult to manage, as it is a narrow tubular organ. We have devised a useful guide tube for the esophagus, which is now commercially available: the multipurpose tube (MP tube, Create Medic, Inc., Tokyo, Japan). The MP tube was designed on the basis of the All-Silicone EIS Multipurpose Guide Tube (Create Medic, Inc.). We can carry out various types of examination and treatment safely and easily with the MP tube, including endosonography with a 20-MHz ultrasonic thin probe, endoscopic mucosectomy, injection sclerotherapy, etc.

The MP tube consists entirely of nearly transparent silicone, and is 60 cm (Type A) or 55 cm (Type B) in length, with an outer diameter of 15.5 mm and an inner diameter of 12.0 mm, and with a proximal balloon for controlling intraluminal negative pressure, a distal outer balloon for compression, a working channel, and a side hole for some management procedures (Figure 1).

**Techniques.** The preparation of the patient is the same as for usual endoscopy, and an MP tube overlaid on the panendoscope can be inserted smoothly after endoscopic observation.

*Usual endoscopic examination.* With an MP tube, we can obtain a focused view of the entire esophagus through the side hole, the end hole, and the tube itself.

*Endosonography.* Endosonography using a 20-MHz ultrasonic probe with an MP tube provides good conditions for examination through the side hole, because the tube supports water retention and minimizes wall movement in the esophagus (1).

*Endoscopic mucosal resection.* The tube allows reliable, relatively wide (3 × 2 cm on average) mucosectomy anywhere in the esophagus, using the negative pressure method (2). Repeated mucosectomy is also easy when an MP tube is used.

*Endoscopic injection sclerotherapy.* Puncture of esophageal varices is easy, because the esophageal varices protrude through the side hole; when the varix bleeds, the compression balloon works effectively for hemostasis. An MP tube is particularly useful for intravariceal injection in small varices using the negative pressure method (3).

We have used the MP tube mainly for endoscopic esophageal mucosectomy and endosonography, and have carried out mucosectomies using an MP tube or its prototype in 59 esophageal lesions in 42 patients. All of the patients who underwent mucosectomy were treated safely, with no perforation of the esophagus or uncontrollable bleeding occurring.

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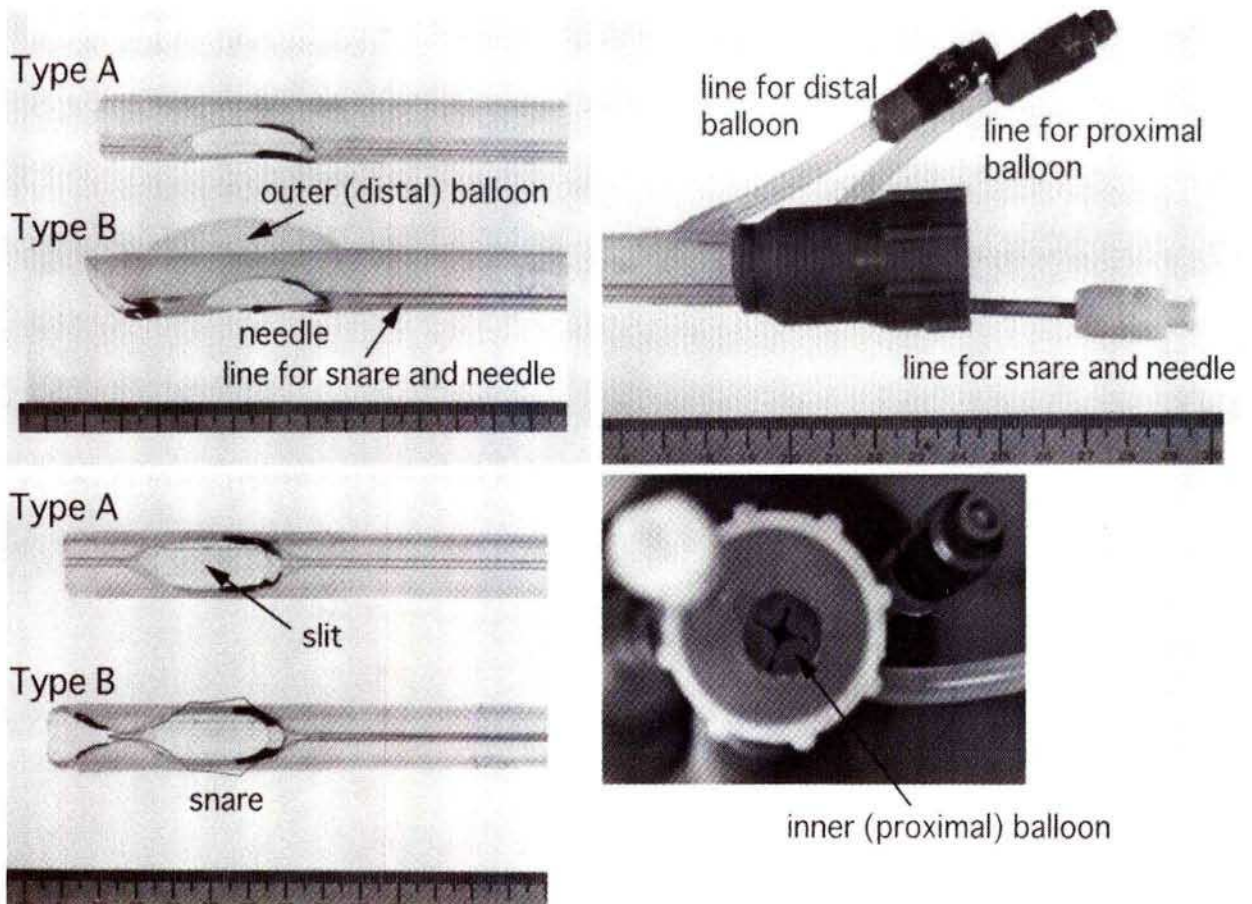


Figure 1: The appearance of the multipurpose tube.

**References**

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3. Kawano T, Nakamura H, Inoue H, Endo M. Endoscopic injection sclerotherapy using a transparent overtube with intraluminal negative pressure (np-EIS) for esophageal varices. *Surg Endosc* 1990; 32: 43–51.

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