

Use of endoscopic nasobiliary drainage tube for treating mediastinitis caused by insertion of an esophageal self-expanding metal stent

Self-expanding metal stents (SEMS) are relatively easy to deploy, with a high technical success rate, and provide rapid relief of dysphagia [1], which is the major factor affecting quality of life in patients not suitable for resection. Since Domschke et al. first reported the use of SEMS in 1990 [2], the technique has been widely used for malignant esophageal stenosis [3], although there have been many reports of complications associated with the combination of SEMS and chemoradiation therapy (CRT) [4,5].

A 56-year-old man was diagnosed as having carcinoma of the lower esophagus in July 2008. After CRT, he was admitted to our hospital for second-line chemotherapy in October 2008. The patient had developed uncontrollable salivation in the

month prior to admission. A SEMS was placed successfully, but he developed fever and low blood pressure on November 28, 2008. Computed tomography (CT) examination revealed a fistula between the esophagus at the oral end of the SEMS and the mediastinum, and mediastinitis was suspected. Despite the administration of antibiotics, and steroid pulse and γ -globulin combination therapy, an abscess with liquefaction was confirmed in the mediastinum 7 days later (● Fig. 1). An endoscopic nasobiliary drainage (ENBD) tube was placed in the mediastinal abscess along a guide wire to allow drainage (● Fig. 2).

A CT scan demonstrated improvement in the abscess 12 days after insertion of the ENBD tube (● Fig. 3).

The risks and benefits of SEMS insertion must be weighed in light of the existing illness and the patient's quality of life. We report the case of a patient with esophageal carcinoma treated with CRT who developed mediastinitis after SEMS insertion. Mediastinitis was treated by esophago-mediastinal drainage of the mediastinal abscess via the insertion of an ENBD tube. This technique has not been previously reported, but appears to represent a useful method for management of mediastinitis after SEMS insertion.

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Competing interests: None

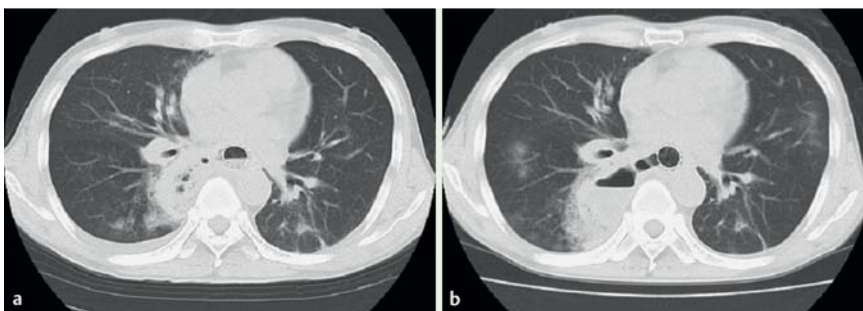


Fig. 1 CT examination after first SEMS insertion. **a** There is an infiltrative shadow between the mediastinum and the esophagus. Consolidation on the dorsal side suggests air inclusion. Formation of a fistula between the esophagus and the mediastinum was suspected. Septic shock caused by mediastinitis was diagnosed. **b** An abscess with liquefaction in the mediastinum, noted 7 days later despite the administration of antibiotics, and steroid pulse and γ -globulin combination therapy.

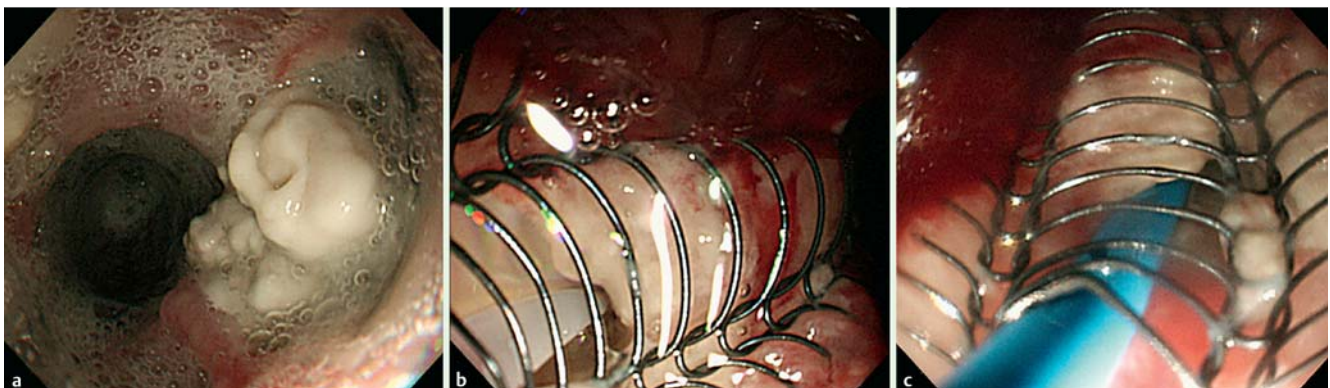


Fig. 2 Upper gastrointestinal endoscopy. **a** Partial granulation accompanied by white necrotic tissue at the oral edge of the stent. **b** Removal of the granulation tissue revealing the fistula between the esophagus and the mediastinum. An endoscopic retrograde cholangiopancreatography (ERCP) catheter was inserted into the fistula. **c** A 6-Fr endoscopic nasobiliary drainage (ENBD) tube was placed in the mediastinal abscess along the guide wire.



Fig. 3 Radiological follow-up after endoscopic nasobiliary drainage (ENBD) tube drainage. Computed tomography (CT) examination confirmed adequate drainage of the mediastinal abscess, and revealed improvement of the abscess 12 days after tube insertion.

K. Soga^{1,4}, J. Ochiai^{2,4}, T. Miyajima^{3,4},
Y. Naito⁴, T. Yoshikawa⁴

¹ Department of Internal Medicine,
Nishijin Hospital, Kyoto, Japan

² Department of Gastroenterology,
Gakkentoshi Hospital, Kyoto, Japan

³ Department of Gastroenterology,
Uji Takeda Hospital, Kyoto, Japan

⁴ Department of Molecular Gastroenterology and Hepatology, Kyoto Prefectural University of Medicine, Kyoto, Japan

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Bibliography

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Corresponding author

K. Soga

Nishijin Hospital
Department of Internal Medicine
1035 Mizomae-cho
Kamigyo-ku
Kyoto 602-8319
Japan
Fax: +81-75-461-5514
sogatti@koto.kpu-m.ac.jp