

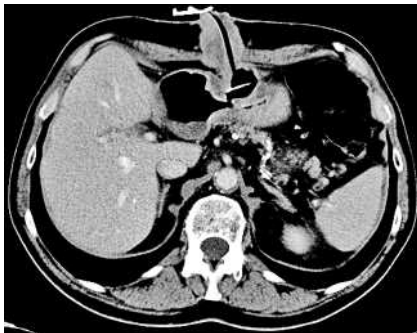
## Implantation of an esophageal squamous cell carcinoma at the site of a percutaneous endoscopic gastrostomy



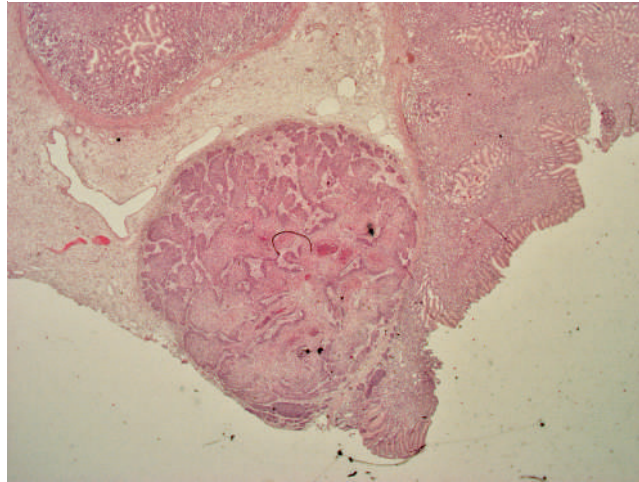
**Fig. 1** Macroscopic aspect showing the skin alteration at the site of the PEG, which was regarded as granulation tissue.



**Fig. 2** Gastroscopic view of the tumor at the PEG site.



**Fig. 3** Metastatic tumor implantation at the site of the PEG; the tumor mass extends from the gastric lumen to the skin.



**Fig. 4** Esophageal squamous cell carcinoma with distinctive lymphangiosis and hemangiosis carcinoma-tosa (H & E staining).

A 54-year-old man presented with a stenosing, moderately differentiated squamous cell carcinoma (SCC) of the proximal esophagus. Tumor stage was cT3-4N1M0. The patient underwent radiochemotherapy with curative intent. A percutaneous endoscopic gastrostomy (PEG) was placed using the standard pull-through method.

After 5 months the patient noticed a skin alteration at the site of the PEG, which was regarded as granulation tissue (● Fig. 1). In a routine gastroscopy 2 months later, an ulcer at the gastric site of the PEG was found (● Fig. 2), and initially diagnosed as adenocarcinoma. Computed tomography demonstrated a tumor mass along the PEG-tube (● Fig. 3). Additionally, a suspicious hypodense hepatic lesion was detected. Complete local esophageal tumor control was documented. At laparotomy, a frozen section of the liver lesion showed a poorly differentiated SCC. Therefore, palliative subtotal gastrectomy with en bloc resection of the abdominal wall was carried out (● Fig. 4).

Since the first description of PEG in 1980 [1], it has become a valuable method for nutritional support. The implantation of oropharyngeal or esophageal cancer at PEG stoma sites is a rare complication with an unknown incidence [2]. The average period of time from tube placement to metastatic spread is reported to be approximately 9 months (range 3–18 months) [3]. Length of survival following this complication is rarely reported, and varies between 2 and 28 months [4]. The mechanism of tumor spread to the PEG site is controversial. Hematogenous or lymphatic spread to a susceptible site, as well as – more likely – direct mechanical implantation at the time of the PEG placement are proposed [3–5]. To avoid mechanical tumor implantation, the contact of the PEG tube with the tumor should be minimized. In patients with bulky, stenosing tumors this can be achieved by using a sheath or overtube. Alternatively, radiologic or operative placements can be carried out.

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## Bibliography

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