

### Extracorporeal Bypassing of a Partial Obstruction of the Afferent Loop by Percutaneous Endoscopic Jejunostomy and Gastrostomy

Partial obstruction of the afferent loop is a rare condition after gastrojejunostomy, and in most cases it can be corrected by surgery. So far as we are aware, the use of an endoscopically placed jejunostomy and gastrostomy for extracorporeal bypassing of pancreatic and biliary secretions has not previously been reported in the literature as a successful form of treatment for a partially obstructed afferent loop. We report here a case in which this method was used to treat partial obstruction of the afferent loop after palliative gastrojejunostomy in a patient with AIDS and obstructive intestinal Kaposi's sarcoma.

A 30-year-old man with AIDS (CDC C3) was admitted in October 1994, his major problem being relapsing intestinal obstruction due to Kaposi's sarcoma, which had been present since the beginning of 1994 (Figure 1). During this period, he had lost 30 kg in weight. The patient had been undergoing systemic chemotherapy with liposomal doxorubicin (20 mg/m<sup>2</sup> every three weeks) since 1992

for known cutaneous and nodal Kaposi's sarcoma. A small-bowel enema showed subtotal stenosis in the ascending part of the duodenum. Laparotomy revealed multiple segmental small-bowel thickenings and a sealed perforation site in the distal ileum. The perforation was sutured, and a retrocolic gastrojejunostomy was performed. For nutritional support, a percutaneous endoscopic jejunostomy was placed. After nutrition was started, postnutritional diarrhea and bile vomiting of up to three liters per day became the principal problems. Prokinetic and antisecretory medical treatment was unsuccessful. Endoscopy and a further small-bowel enema showed that these symptoms were caused by partial obstruction of the afferent loop. As the patient was unwilling to undergo surgical correction, a percutaneous endoscopic gastrostomy was placed to drain the pancreatic and bile secretions and to allow an extracorporeal bypass into the percutaneous endoscopic jejunostomy (Figures 2, 3). Once the bypass was started, the vomiting and diarrhea stopped immediately, and the patient thrived and gained

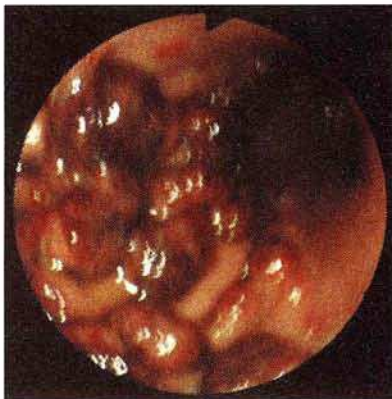


Figure 1: Kaposi's sarcoma in the gastric antrum.

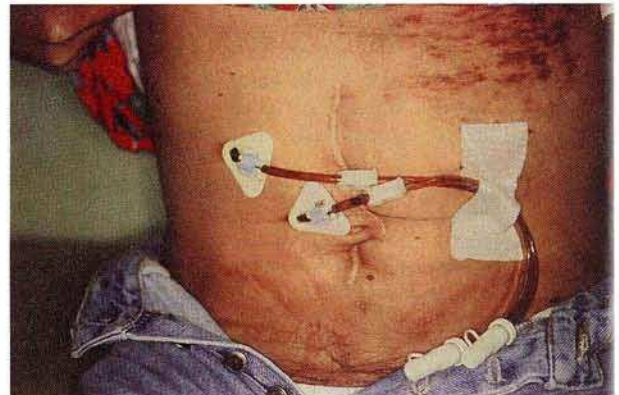


Figure 3: Extracorporeal connection of the percutaneous endoscopic jejunostomy and gastrostomy to bypass the partial obstruction of the afferent loop.

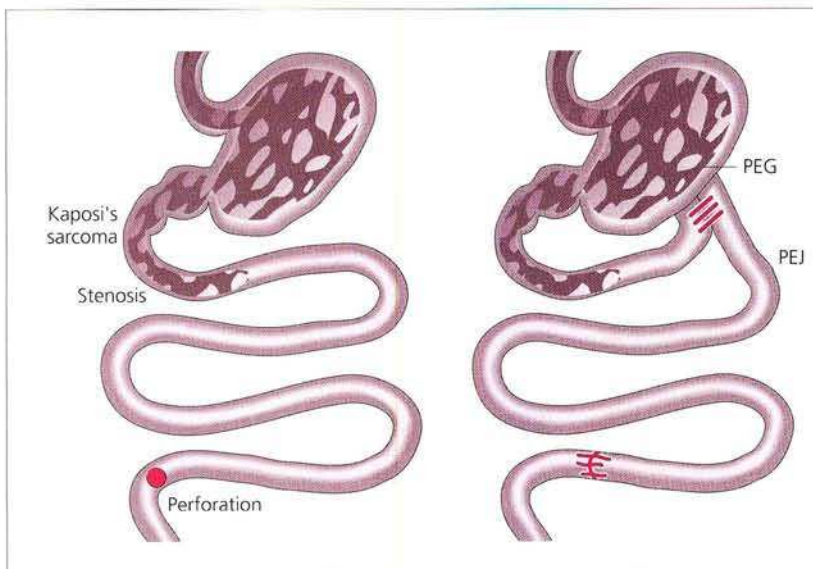


Figure 2: Position of the percutaneous endoscopic jejunostomy (PEJ) and gastrostomy (PEG) for extracorporeal bypassing of a partial obstruction of the afferent loop.

23 kg in weight. With intensified chemotherapy, the bypass became unnecessary after 270 days due to regression of the intestinal Kaposi's sarcoma, and the gastrostomy and jejunostomy were removed endoscopically.

Gastrointestinal Kaposi's sarcoma is frequent in patients with AIDS, but it rarely becomes symptomatic. In autopsy studies, gastrointestinal Kaposi's sarcoma was seen in up to 70% of patients with Kaposi's sarcoma (1,2). The Kaposi lesions are usually small and multiple (Figure 1), but they may occasionally be bulky masses (2). Rare clinical consequences of gastrointestinal Kaposi's sarcoma lesions have been reported, mostly involving bleeding (3,4). Gastrojejunostomy is commonly used as a palliative surgical procedure in the treatment of gastric or duodenal obstruction. Partial obstruction of the afferent loop with massive bile vomiting, as experienced by our patient, is rarely seen after gastrojejunostomy, and would usually be corrected surgically (5). Since the patient refused any further surgical procedure, an extracorporeal bypass with percutaneous endoscopic gastrostomy and jejunostomy seemed to be the only alternative treatment. The prompt cessation of his symptoms and the weight gain made it possible to intensify the chemotherapy, and resulted in the patient having a long survival period.

K. Caca<sup>1</sup>, J. R. Bogner<sup>1</sup>, B. Eibl-Eibesfeld<sup>2</sup>, W. G. Zoller<sup>1</sup>

<sup>1</sup> Medizinische Poliklinik

<sup>2</sup> Chirurgische Klinik und Poliklinik Klinikum Innenstadt

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## Corresponding Author

K. Caca, M.D.

Medizinische Poliklinik

Klinikum Innenstadt

Ludwig-Maximilians-Universität München

Pettenkoferstrasse 8a

80336 München

Germany

Fax: +49-89-5160-4187