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Combined method for treating gastrocutaneous fistula after percutaneous endoscopic gastrostomy removal

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A 56-year-old woman with food leaking by gastrocutaneous fistula (GCF), after removal of a 20 Fr percutaneous endoscopic gastrostomy (PEG), unresponsive to clinical treatment. She had PEG for 6 months, due to dysphagia and weight loss, related to squamous cell carcinoma of the esophagus and treatment with chemotherapy and radiotherapy.

We chose to close the ostomy with a simple hybrid technique, electrocoagulation associated with percutaneous suture guided by endoscopy. (E-VIDEO*). The procedure was performed with the patient under deep sedation and local anesthesia. Upper digestive endoscopy was performed identifying the gastric orifice of the GCF. (FIGURE 1). Initially electrocoagulation of the orifice, using coagulation current 40 Watts followed by percutaneous punctures on each corner of the GCF with a 14G peripheral intravenous catheter. (FIGURE 2). Subsequently a 3–0 nylon monofilament suture folded in half is passed through the catheter, forming the "loop" aspect. (FIGURE 3). The next step is to introduce a second 3–0 monofilament suture on the opposite corner catheter. This last

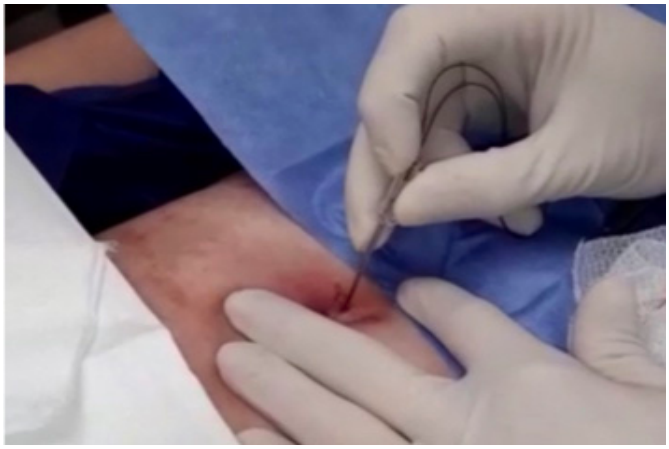

FIGURE 2. Percutaneous punctures on each corner of the gastrocutaneous fistula with a 14G peripheral intravenous catheter.

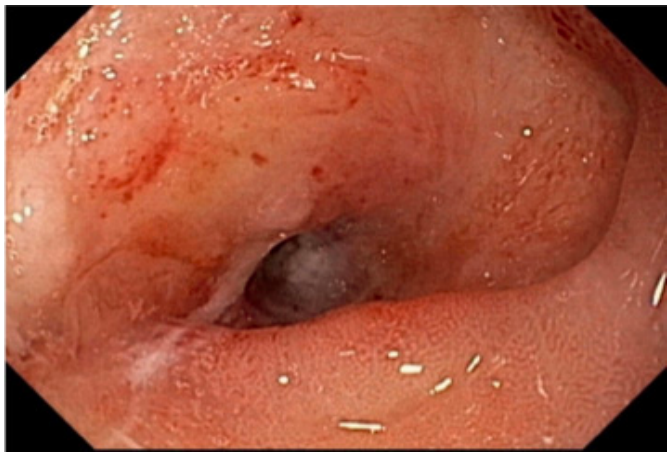

FIGURE 1. Upper digestive endoscopy was performed identifying the gastric orifice of the gastrocutaneous fistula.

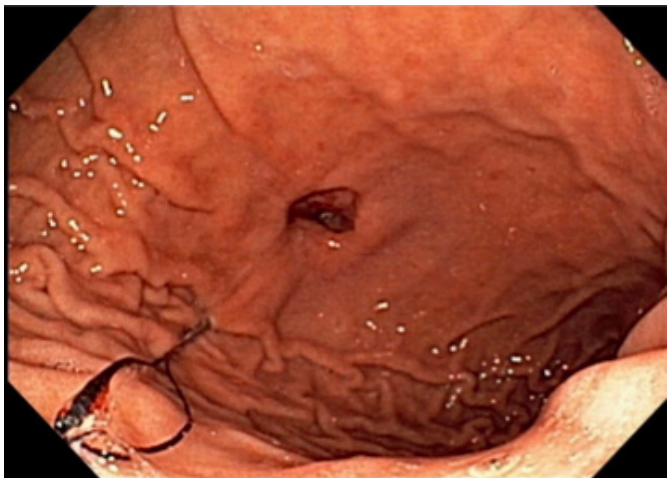

FIGURE 3. "Loop" aspect.

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***E-VIDEO: https://youtu.be/m5tyMpP8FgU**

suture should be guided by a biopsy forceps through the priorly formed suture "loop" under direct endoscopy view. (FIGURE 4). Once the first suture loop is pulled, the second suture will form a second loop on the gastric side with its booth extremities on the skin side, allowing the GCF to be closed by tying a surgical knot. (FIGURE 5).

In the follow up, patient returns after 15 days to remove the surgical knot with resolution of the GCF, without leakage of diet by GCF.

The opening of the wall after removal of PEG usually closes in about 1 to 3 days[1]. Persistent GCF after PEG removal is rare and uncommon in adults[2]. Surgical treatment has been largely replaced by endoscopy and several techniques have been described[3]. Electrocoagulation deepithelialize the tract and promote healing[4] and the suture causes mechanical closure[5]. The combined method for closing PEG with electrocoagulation associated with suture is simple, safe and has good results.

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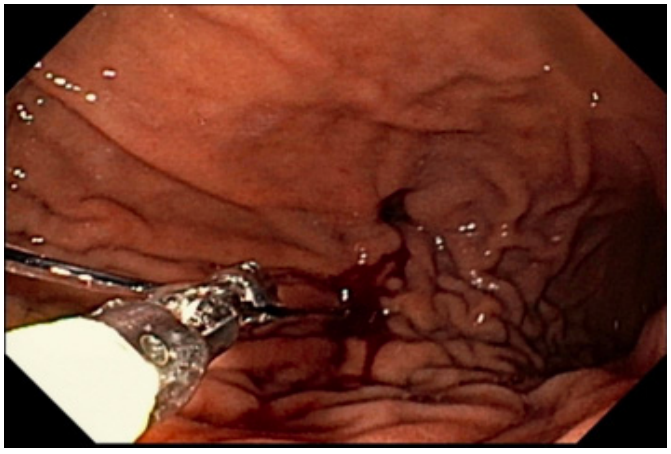

FIGURE 4. Last suture should be guided by a biopsy forceps through the priorly formed suture "loop" under direct endoscopy view.

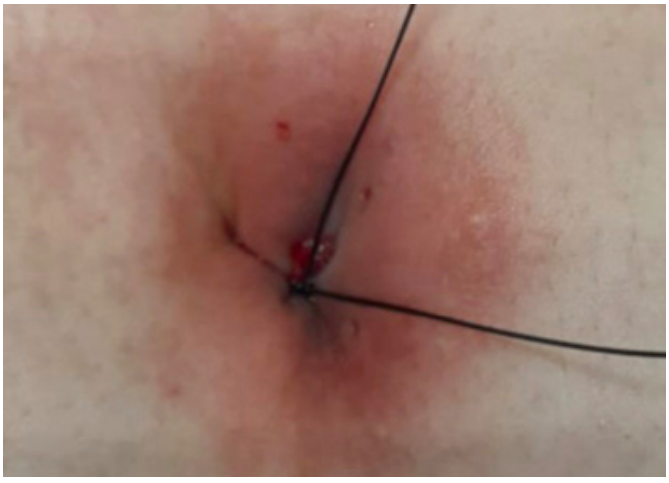

FIGURE 5. Surgical knot.

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