

None Shall Pass: Migrated Surgical Mesh Causing Gastric Outlet Obstruction with Endoscopic Extraction

Matthew J. Sullivan DO

Lehigh Valley Health Network, Matthew.Sullivan@lvhn.org

Shashin Shah MD

Lehigh Valley Health Network, Shashin.Shah@lvhn.org

Paola Blanco MD

Lehigh Valley Health Network, Paola_G.Blanco@lvhn.org

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None Shall Pass: Migrated Surgical Mesh Causing Gastric Outlet Obstruction with Endoscopic Extraction

Matthew J. Sullivan, DO, Shashin Shah, MD, and Paola Blanco, MD

Division of Gastroenterology and Hepatology, Department of Internal Medicine, Lehigh Valley Health Network, Allentown, Pa.

BACKGROUND

- Paraesophageal hiatal hernias account for 5-10% of all hiatal hernias and are more common in elderly patients¹
- Laparoscopic Nissen fundoplication, with or without mesh, is a mainstay of surgical management²
- Complications from surgical mesh include erosion, stenosis, and dense fibrosis³
- Surgical mesh migration is an uncommon and unpredictable complication which is rarely reported in the literature⁴
- Clinical presentation is variable and based on the involved organ, but can be complicated by bleeding, fistula formation, or abscess⁴

CASE PRESENTATION

- A 77-year-old female presented to an outside hospital with nausea, vomiting, and a 10 pound weight loss
- She underwent Nissen fundoplication with mesh reinforcement three years prior
- An EGD at the outside hospital demonstrated a foreign body in the stomach; due to its size she was referred back to General Surgery and a CT scan was ordered (Figure 1)
- A repeat EGD was performed demonstrating a large mobile foreign body which appeared to be surgical mesh with multiple metallic rivets (Figures 2-5)
- The foreign body was too large to be extracted through the fundoplication using a standard upper endoscope despite attempts using various tools and an advanced endoscopist was called into the room
- Using a double channel therapeutic upper endoscope, nets were passed through both channels and the foreign body was able to be completely encompassed and gradually compressed to a diameter which allowed for successful extraction through the mouth

DISCUSSION

- Surgical mesh migration is an uncommon complication of hernia repair with transmural migration being exceedingly rare⁴, with only approximately 10 cases reported in the literature as of January 2018²
- There are reports in the literature of mesh migration from various surgeries into the colon, small bowel, stomach, urinary bladder, and scrotum⁴
- Repeat surgery is often required for extraction of the mesh and repair of complications²
- Transmural migration can allow for endoscopic removal² and avoidance of repeat surgery
- Mesh migration should be considered in atypical presentations of abdominal pain in patients with a history of hernia repair with mesh, especially as complications from surgical mesh tend to occur years after surgery⁴

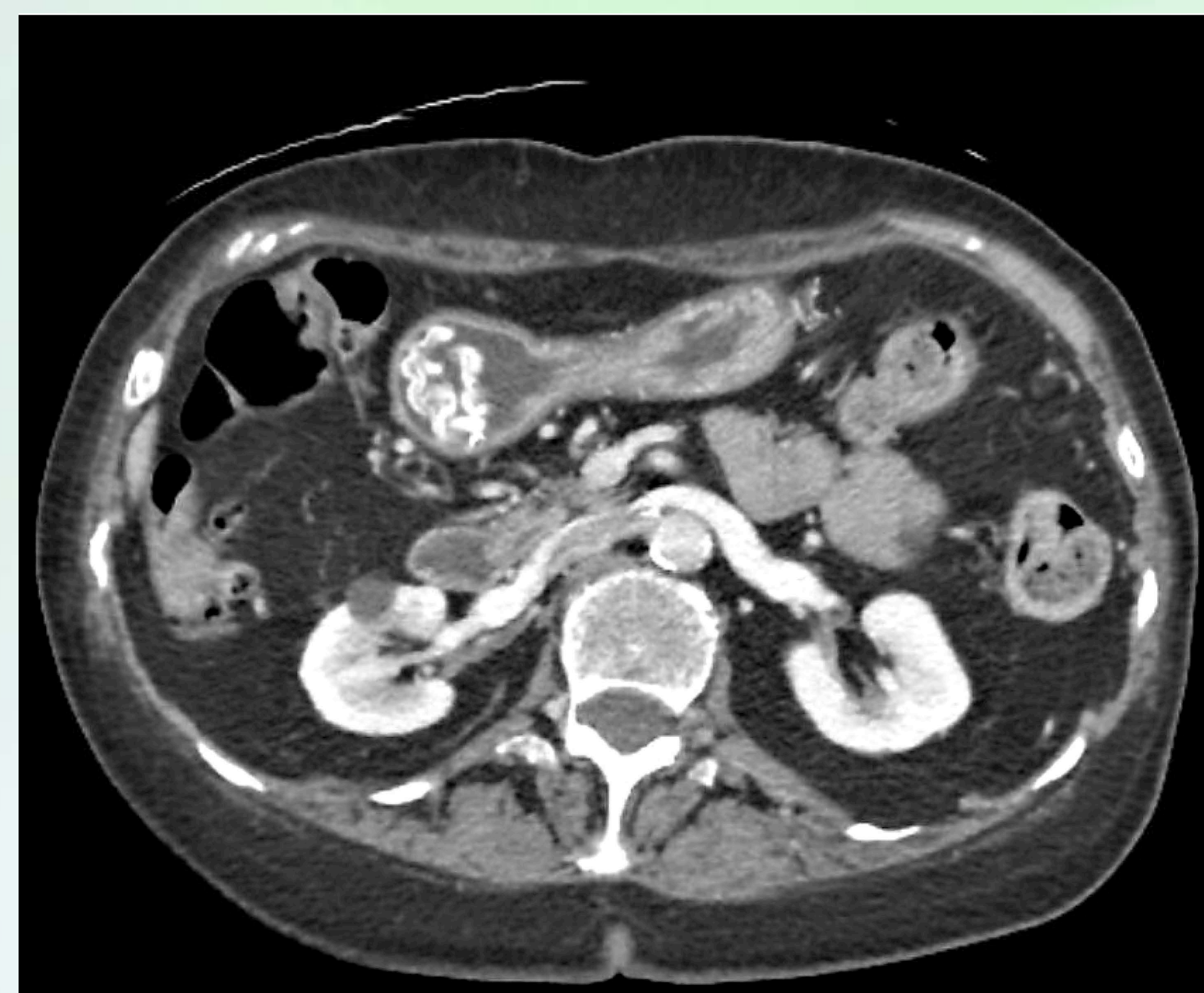


Figure 1. CT of abdomen and pelvis demonstrating a thin radiopaque object with multiple ring foci of metallic density within the distal stomach.

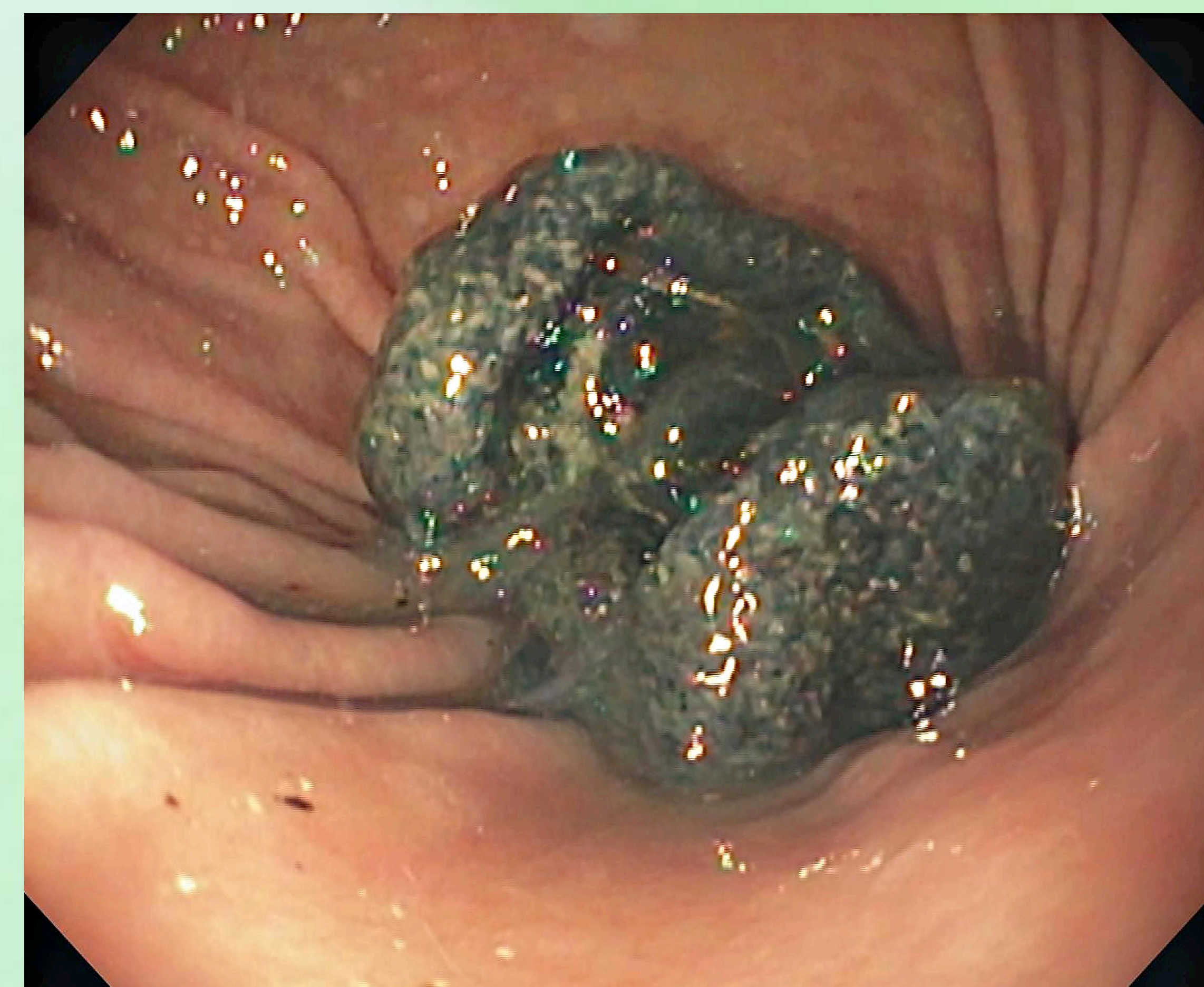


Figure 2. Surgical mesh in the gastric antrum.

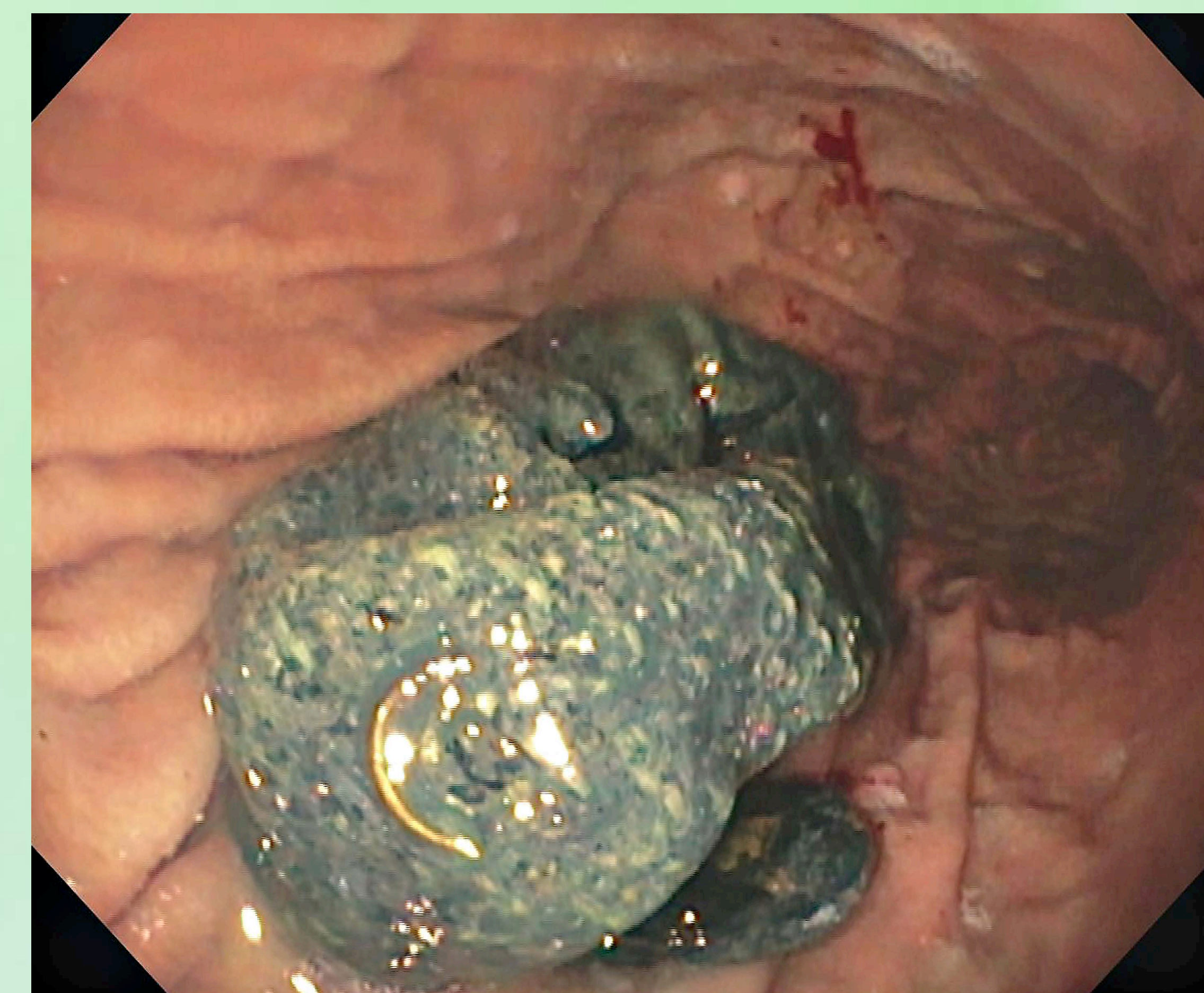


Figure 3. Surgical mesh with metallic rivets freely mobile within the gastric lumen.

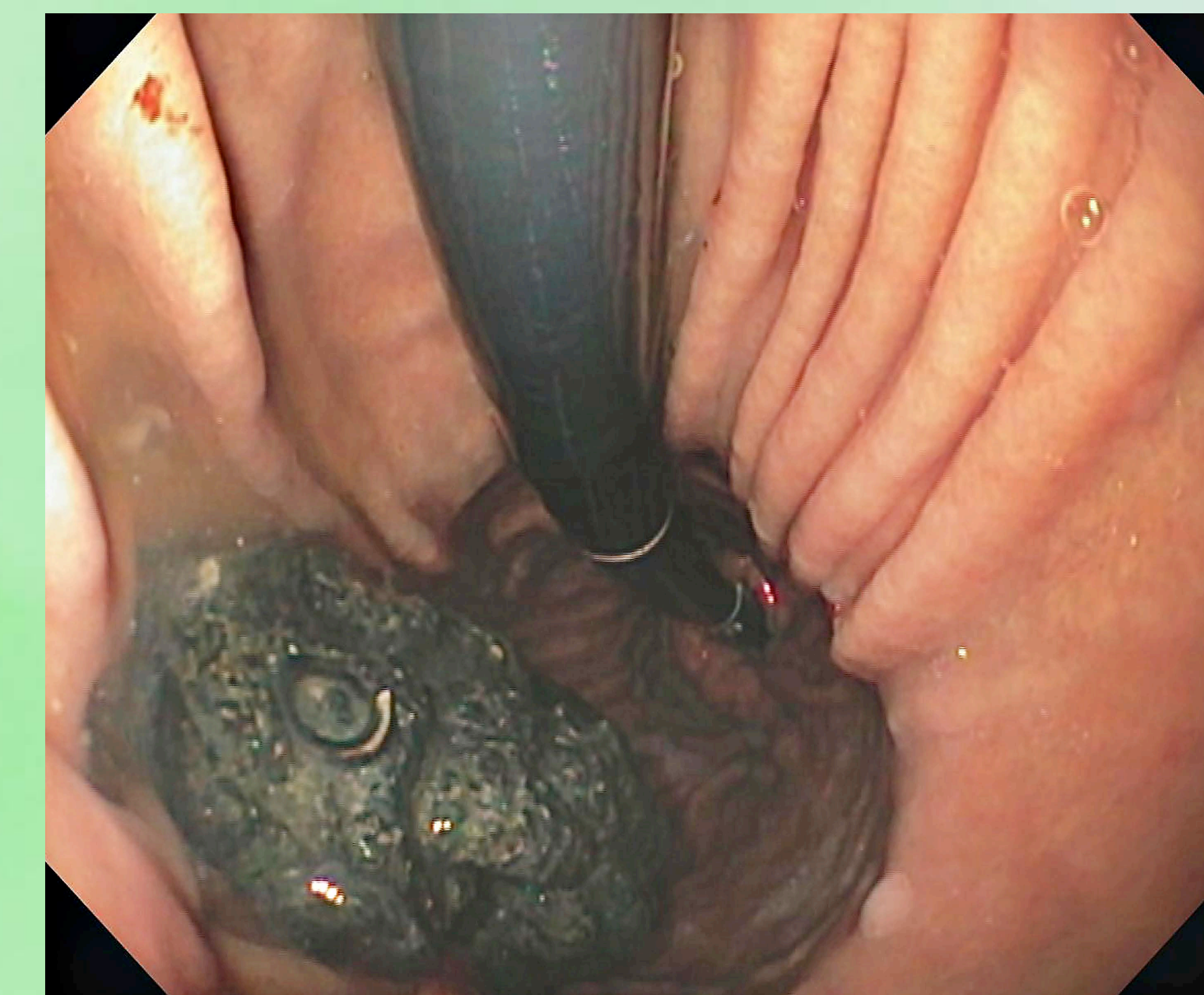


Figure 4. Retroflexed view of freely mobile surgical mesh within the gastric lumen.



Figure 5. Close-up view of the sharp edge of one of the metallic rivets.

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