Received: 13 January 2025 | Accepted: 2 April 2025

DOI: 10.1002/jpn3.70074

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CASE VIDEO

Endoscopy and Procedures

Isolated intestinal lymphatic anomaly: Underwater endoscopic identification and therapeutic intervention

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KEYWORDS

endoscopy, lymphatic abnormality, lymphatic malformation, protein losing enteropathy

Funding information

None

We present a 12-month-old, 10 kg male with protein-losing enteropathy (PLE) exhibiting acute-on-chronic diarrhea and peripheral edema. Symptoms were refractory to medical treatment, prompting further evaluation with cardiac catheterization, magnetic resonance lymphangiography revealing lymphatic leakage into the duodenum, and esophagogastroduodenoscopy (EGD).

EGD was performed using a 27-French outer diameter flexible endoscope displaying lymphangiectasia in the duodenum, characterized by white punctate lesions. Underwater endoscopic submersion with sterile water revealed white lymph aggressively flowing from a singular location on the lateral wall of the major papilla, distinct from the biliary orifice (Figure 1A). Following injection of methylene blue and lipiodol into the lymphatics by interventional radiology, drainage of this mixture was observed from the previously identified site, confirming lymphatic leak. Treatment with silver probe bipolar cautery (1.5 W, soft coagulation) and pulsed argon beam coagulation (1.5 W, flow rate 0.8 L/min) resulted in cessation of leakage with underwater examination (Figure 1B).

Posttreatment, the patient's clinical symptoms and lab abnormalities normalized, with sustained improvement after 4 months. Underwater endoscopic identification of lymphatic malformations enhances visualization by leveraging the contrast between water and lipid-rich lymphatic fluid. Treatment of localized lymphatic leaks offers a durable solution for PLE and should be considered.

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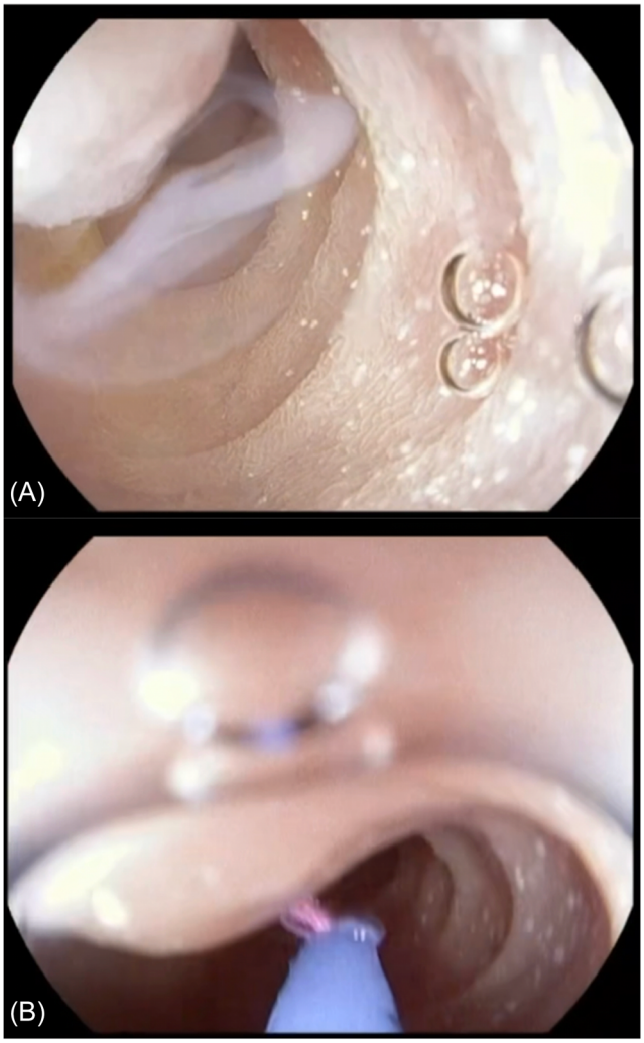

FIGURE 1 Underwater endoscopic submersion displayed white lymph aggressively flowing from a singular location on the lateral wall of the major papilla, distinct from the biliary orifice (A). Treatment with silver probe bipolar cautery and argon beam coagulation (B) resulted in cessation of leakage with underwater examination.

CONFLICT OF INTEREST STATEMENT

David Troendle: Consultant with Pentax and Olympus. The remaining authors declare no conflicts of interest.

ETHICS STATEMENT

Informed verbal parent consent was obtained before submission of this video case report.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Polachek A, Daves G, Pimpalwar S, et al. Isolated intestinal lymphatic anomaly: Underwater endoscopic identification and therapeutic intervention. *J Pediatr Gastroenterol Nutr*. 2025;1-2. doi:10.1002/jpn3.70074

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