

Difficult enteral stenting made simple

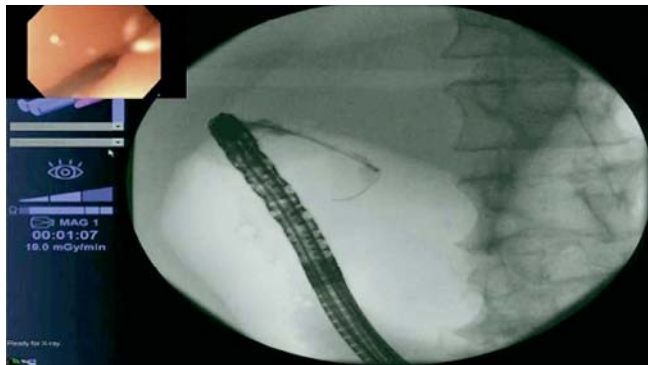


Fig. 1 Fluoroscopic image showing injection of contrast using a ball-tip catheter to locate the duodenal stricture.

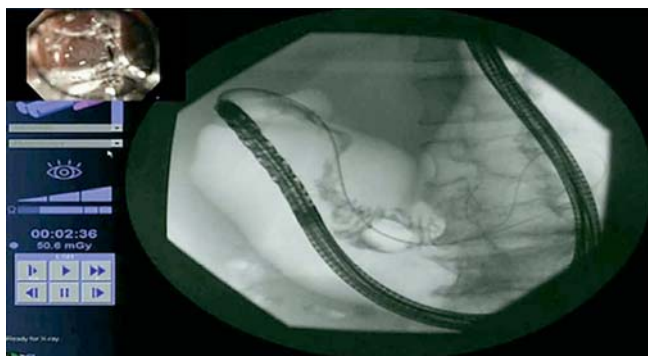
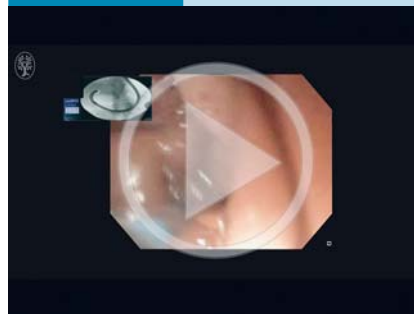


Fig. 2 Pressure injection of contrast under fluoroscopy to assess the length of the duodenal stricture.

Video 1



Radiographic imaging showing abdominal metastases and features of gastric outlet obstruction in a man with malignant duodenal stricture; endoscopic view of the stricture; fluoroscopic and endoscopic views showing a ball-tip catheter being carefully advanced across the stricture, an obstruction duodenogram to determine the length of the stricture, and a self-expandable metal stent being positioned across the stricture.

Enteral stenting is an accepted palliative option for malignant strictures. Long narrow duodenal strictures can be technically challenging [1,2]. A 55-year-old man with a history of Crohn's disease and a newly diagnosed malignant duodenal stricture presented with poor oral intake. Abdominal imaging revealed extensive metastatic disease with proximal duodenal obstruction without biliary obstruction. An upper gastrointestinal endoscopy with stent placement was performed.

A gastroscope was advanced to the duodenal bulb, where the stricture was encountered but could not be traversed. Under endoscopic and fluoroscopic guidance, a ball-tip catheter with a preloaded guidewire was advanced into the stricture. Resistance to initial passage of the wire was encountered because of the stricture's tortuosity and length. A series of maneuvers, under fluoroscopic guidance with contrast injection, with slow advancement of the ball-tip catheter over the wire allowed the stricture to be crossed. The ball-tip catheter allowed for advancement of the wire with greater precision (● Fig. 1).

Once beyond the stricture, the wire was coiled in the distal small-bowel lumen. The ball-tip catheter was exchanged for a 15-mm extraction balloon, which was inflated in the small-bowel lumen just beyond the stricture. An occlusion duodenogram revealed a narrow stricture of 10 cm in length (● Fig. 2). Because of stent shortening during deployment, it is preferable to deploy a stent at least 2 cm longer than the stricture [3]. Therefore, a 22-mm × 12-cm uncovered self-expandable metal stent (SEMS) was deployed under endoscopic and fluoroscopic guidance. Gentle traction was applied to combat radial and propulsion forces during deployment. Contrast injection confirmed the patency and positioning of the stent (● Video 1).

The patient was monitored post-procedure and was discharged home the same day, tolerating an oral diet.

Endoscopic stent placement across long narrow duodenal strictures can be challenging. Use of a ball-tip catheter allows for precise advancement of the wire, leading to successful stenting of difficult enteral strictures.

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