

Endoscopic Eversion and Stent-assisted Strangulation for the Management of an Intraductal Papillary Neoplasm of the Bile Duct: A Minimally Invasive Technique for Non-surgical Candidates

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Introduction

Intraductal papillary neoplasms of the bile duct (IPNB) are uncommon lesions that may accompany risk for malignancy. Management is often surgical and may be associated with significant postoperative morbidity and mortality.

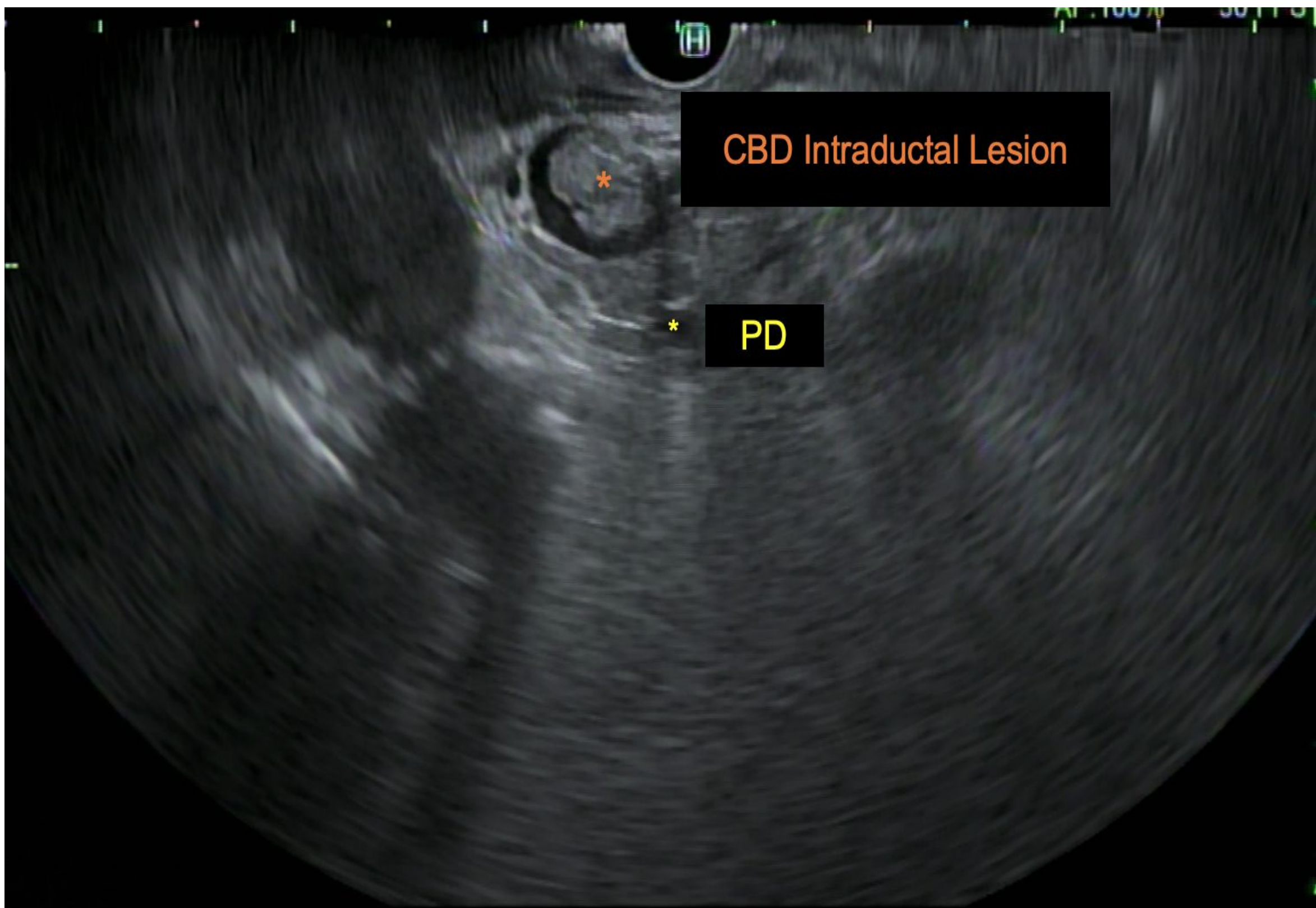
Case Description & Technique

80-year-old female with presented for management of jaundice and sepsis.

Computed tomography (CT) imaging: intra and extrahepatic biliary ductal dilation with a 19 mm soft tissue density in the distal common bile duct (CBD).
 Endoscopic ultrasound (EUS) delineated a round, hypoechoic intraductal CBD lesion.
 Endoscopic retrograde cholangiopancreatography (ERCP) confirmed a distal CBD filling defect. Biliary sphincterotomy was performed and balloon sweeping revealed a frond-like partially protruding polypoid lesion suggestive of an IPNB.

A complete eversion with subsequent full prolapse of the lesion by using a biliary extraction balloon. This was followed by placement of a biliary plastic stent to assist with strangulation of the base of the lesion. Biopsies were consistent with a papillary neoplasm with intestinal differentiation, confirming our findings of an IPNB, without accompanying high-grade dysplasia or carcinoma.

Interval surveillance ERCP 3 months later revealed no protruding lesion from the major papilla, no residual filling defects on cholangiogram, and sweeping of the biliary tree uncovered no contents. Cholangioscopy demonstrated segmental mucosal irregularity with mild granular tissue in the mid/distal bile duct wall; however, cholangioscopy-guided intraductal biopsies and brushings showed benign reactive tissue and no recurrent IPNB. At 5 months of follow-up, the patient continues to do well.



Figures 1-2



Discussion

IPNB is a rare biliary lesion. Radical surgical resection has been the mainstay of curative treatment. However, a few recent cases have described endoluminal radiofrequency ablation as an alternative therapy. To the best of our knowledge, this is the first reported case of balloon-assisted eversion combined with stent-assisted strangulation of an IPNB leading to spontaneous removal. In non-surgical candidates, this technique may be advantageous to minimize adverse operative outcomes, improve patient tolerance, and decrease cost.

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Figure 3

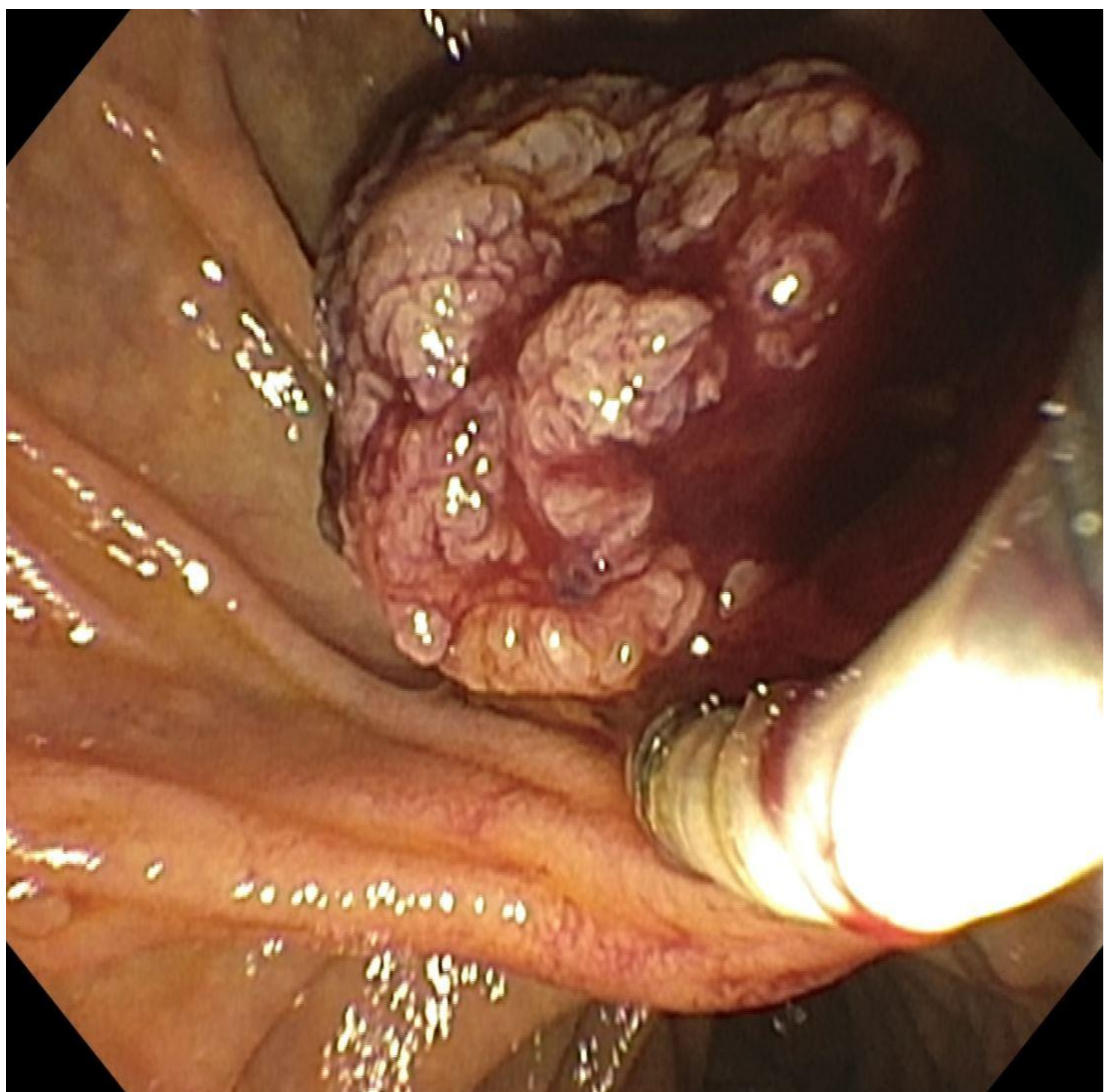


Figure 4



Figure 5

