

Argon Plasma Coagulation With Cholangioscopy as Additional Treatment for Residual Ampullary Tumor in a Young Familial Adenomatous Polyposis Patient

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CASE REPORT

A 22-year-old woman affected by familial adenomatous polyposis (FAP) was endoscopically diagnosed with a 10-mm ampullary tumor, which was partially accompanied by a reddish depression (Figure 1). Her mother carried a germline *APC* mutation (NM000038.5:c.1381G>T/p.E461X). Because intraductal involvement was not observed with endoscopic ultrasonography, we conducted an endoscopic papillectomy (EP). Histologically, the tumor was a tubular adenoma with high-grade dysplasia extending to the common channel and was close to the resection margin (Figure 2). Three weeks later, a residual tumor was detected on re-examination (Figure 3). We selected argon plasma coagulation (APC) for additional treatment because of the invasiveness of surgery. Cholangioscopy (SpyGlass DS; Boston Scientific, Marlborough, MA) was performed to confirm that the tumor did not superficially extend to the inferior bile duct because coagulation is generally feasible only downstream of the sphincter of Oddi. Subsequently, APC was conducted from the ampullary orifice to the common channel. Cholangioscopy was also useful to ensure adequate ablation in this case by direct observation of the lumen. Actually, APC was repeated after initial ablation because cholangioscopy revealed a partially unburned area. We could confirm sufficient ablation after the second procedure (Video 1; watch the video at <http://links.lww.com/ACGCR/A13>). No recurrence was seen for 8 months after APC.

Over 50% of patients with FAP develop ampullary tumors throughout their lifetime.¹ The management of ampullary tumor is important because of its malignant potential.² EP was recently performed as an alternative to surgery.³ Because endoscopy is less invasive, this approach might be beneficial for patients with FAP who would otherwise require several surgeries for multiple malignancies. However, the effectiveness of EP is controversial because of recurrence risk. APC is used as an additional treatment for recurrent or residual lesion after EP.⁴ APC is an option for residual ampullary lesions after EP when surgery is considered excessive. Cholangioscopy is reportedly helpful in ruling out intraductal superficial extension of the tumor although available data are limited.⁵ Cholangioscopy may assist in precise diagnosis of tumor extent and ensure successful treatment of ampullary tumors.

DISCLOSURES

Author contributions: H. Cho wrote the manuscript. M. Yamada, N. Tanabe, T. Yoshida, and K. Sugano interpreted the genetic analysis. T. Hashimoto provided the pathological images. M. Yamada, T. Hashimoto, and S. Hijioka edited the manuscript. M. Yamada is the article guarantor.

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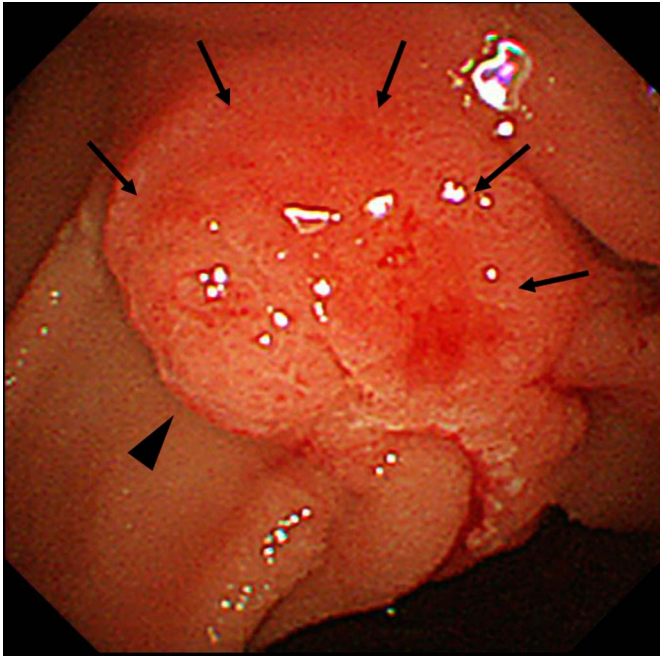


Figure 1. Side-viewing endoscopy showing uneven granular mucosa at the orifice (arrowhead) with a peripheral reddish depression (arrows).

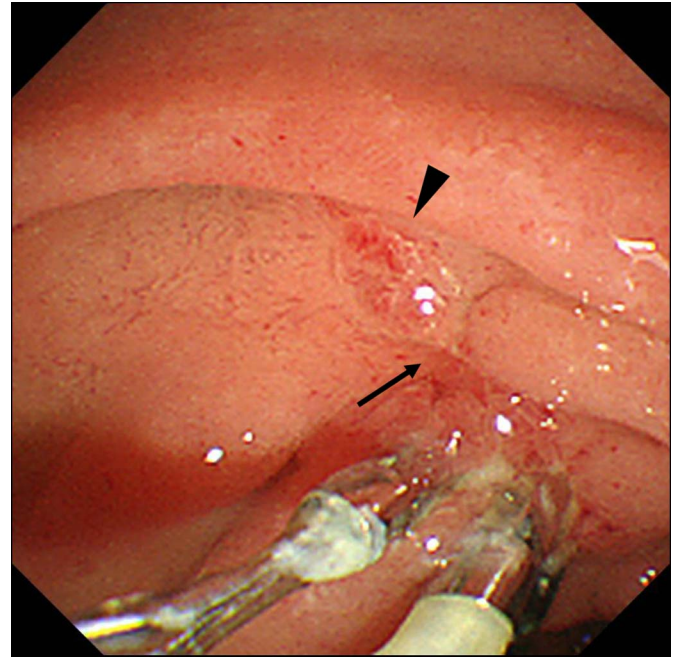


Figure 3. Surveillance endoscopy performed 3 weeks after papillectomy showing a residual lesion. A biopsy of the small reddish protrusion (arrowhead) on the orifice of the bile duct (arrow) was diagnosed as tubular adenoma with low-grade dysplasia.

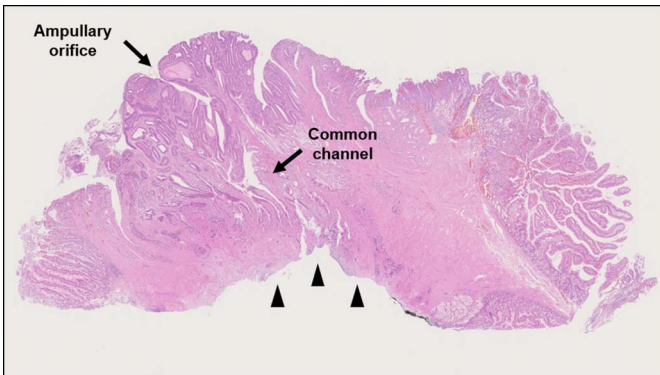


Figure 2. Histology of the endoscopic papillectomy specimen showing a tubular adenoma with high-grade dysplasia that had extended to the common channel and was close to the resection margin (arrowheads).

Informed consent was obtained for this case report.

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Video 1. Cholangioscopy (SpyGlass DS) was used to elucidate the absence of intraductal tumor growth. After observation, argon plasma coagulation was conducted throughout the common channel. Cholangioscopy was also valuable for confirming ablative changes. Watch the video at <http://links.lww.com/ACGCR/A13>.

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