Endoscopic mucosal ablation: a novel technique for a giant nonampullary duodenal adenoma

Piecemeal endoscopic mucosal resection (p-EMR) for large sessile or flat duodenal polyps results in a high incidence of bleeding [1]. A novel injection and ablation technique, endoscopic mucosal ablation (EMA), was used to eradicate a benign sporadic nonampullary duodenal adenomatous polyp. EMA comprises two conventional modalities: submucosal fluid injection followed by high power argon plasma coagulation (APC) tissue ablation (Fig. 1). The fluid-filled submucosal cushion absorbs thermal energy and protects the underlying thin duodenal muscle layer: providing a heat-sink effect [2, 3]. The entire mucosal layer progressively “melts” with lateral propagation of the thermal energy within the duodenal submucosal layer giving a macroscopic appearance of a honeycomb (Fig. 2) [4].

A hemicircumferential, 45-mm, nongranular lateral spreading tumor was identified in the postampullary segment of the duodenum in a 76-year-old woman. A pediatric endoscope (LUCERA PCF240DL; Olympus KeyMed, Southend-on-Sea, UK) was used to achieve stable access for the endoscopic therapy. The polyp was scrutinized with narrow band imaging (NBI) and was seen to have a benign vascular and crypt pattern (type IV). The lesion was lifted entirely with submucosal injection of 25 ml diluted adrenaline (1/200 000) mixed with methylene blue. Representative polyp pieces were removed by p-EMR using a 10-mm snare (SnareMaster kit, Olympus KeyMed).

EMA was finally applied to the remaining 90% of the polyp using high power APC of 45W, on forced coagulation and a flow rate of 2L/minute (ICC 200 and APC 300; ERBE, Tübingen, Germany), until no visible viable polyp was observed (Fig. 3; Video 1). The time required to complete the destruction of the polyp was 13 minutes. Histological analysis showed a tubulovillous adenoma with low grade dysplasia. The patient was discharged the following day on a 2-week course of proton pump inhibitors. No intraprocedural or delayed complications occurred. At the 6 month check, both NBI and indigo carmine (0.1%) dye assessment revealed a completely healed
scar with a tiny 4-mm area of residual polyp that was treated with EMA.

Endoscopy_UCTN_Code_TTT_1AO_2AF

Competing interests: None

Z. P. Tsiamoulos¹, S. T. Peake¹, L. A. Bourikas², B. P. Saunders¹

¹ Wolfson Unit for Endoscopy, St Mark’s Hospital and Academic Institute, London, UK
² Department of Gastroenterology, University Hospital of Heraklion, Crete, Greece

Acknowledgment

The authors would like to acknowledge the assistance of Mr. Stephen Preston, BA, multimedia consultant, in editing the images and video clip.

References


Bibliography

DOI http://dx.doi.org/10.1055/s-0032-1326117
Endoscopy 2013; 45: E12–E13
© Georg Thieme Verlag KG Stuttgart · New York
ISSN 0013-726X

Corresponding author

Z. P. Tsiamoulos, MBBS
Wolfson Unit for Endoscopy
St Mark’s Hospital and Academic Institute
London
HA1 3UJ, UK
Fax: +44-208-8692936
ztsiam@otenet.gr
ztsiamoulos@nhs.net