
4.9. Treatment of ultralong-segment Barrett's using focal and balloon-based radiofrequency ablation

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Surg Endosc Epub on 27 August 2009 ahead of print, DOI 10.1007/s00464-009-0639-4

Introduction: Endoscopic radiofrequency ablation (ERFA) is being evaluated as definitive treatment for patients with Barrett's esophagus (BE). Guidelines have yet to be developed for the application of this technology to patients with ultralong-segment BE (ULBE, ≥ 8 cm). This study reports a single institution's experience with ERFA of ULBE.

Methods: A retrospective review of patients with ULBE undergoing ERFA from August 2005 to February 2009 was conducted. The entire segment of intestinal metaplasia (IM) was treated at each session using balloon- and/or plate-based devices (BARRX Medical, Inc., Sunnyvale, CA). Retreatments, endoscopic mucosal resection (EMR), dilations, and biopsies were performed based on endoscopic findings. Surveillance was conducted according to standard guidelines.

Results: Twenty-five patients (22 male) with a median age of 66 years [interquartile range (IQR) 57–74 years] were included. The length of BE treated was 10 cm (median; IQR 8–12 cm). Intramucosal carcinoma (IMC) was present in 3 patients, 15 had high-grade dysplasia (HGD), 6 had low-grade dysplasia (LGD), and 1 had IM without dysplasia. Complications for all 25 patients included hemorrhage ($n = 1$), stricture ($n = 2$), and nausea and vomiting ($n = 2$). Time from the initial procedure was such that 15 patients had post-ablation biopsies at least once. One patient with biopsies elected to undergo esophagectomy. Of these patients, 78.5% (11/14) had complete response (CR; no residual IM), two patients regressed from HGD to IM, and one patient with IMC had residual HGD and was treated with repeat EMR. The number of ablations in this group was 2.5 (median, IQR 2–3) during a median follow-up time of 20.3 months (IQR 10.4–29.2 months).

Conclusions: ERFA is safe and feasible in patients with ULBE and can be applied to the entire length of IM during one session. Eradication of BE can be achieved with few repeat ablations and continued, vigilant surveillance.