
4.2. Efficacy of radiofrequency ablation combined with endoscopic resection for Barrett's esophagus with early neoplasia

Pouw RE, Wirths K, Eisendrath P, Sondermeijer CM, Ten Kate FJ, Fockens P, Deviere J, Neuhaus H, JJ Bergman

Clin Gastroenterol Hepatol Epub on 14 July 2009 ahead of print, DOI 10.1016/j.cgh.2009.07.003

Background & Aims: Radiofrequency ablation (RFA) is safe and effective for eradicating intestinal metaplasia and neoplasia in patients with Barrett's esophagus. We sought to assess the safety and efficacy of RFA in conjunction with baseline endoscopic resection for high-grade intraepithelial neoplasia (HGIN) and early cancer.

Methods: This multicenter, prospective cohort study included 24 patients (mean age, 65 y; median Barrett's esophagus, 8 cm), with Barrett's esophagus of 12 cm or less containing HGIN or early cancer, from 3 European tertiary-care medical centers. Visible lesions were resected endoscopically, followed by serial RFA. Focal escape endoscopic resection was used if Barrett tissue persisted despite RFA. Complete response, defined as all biopsies negative for intestinal metaplasia and neoplasia, was assessed during endoscopy with 4-quadrant biopsies every 1 cm of the original Barrett's segment 2 months after the last treatment.

Results: Twenty-three patients underwent pre-RFA endoscopic resection for visible lesions; 16 patients had early cancer and 7 patients had HGIN. The worst residual histology pre-RFA (after any endoscopic resection) was as follows: HGIN (10), low-grade intraepithelial neoplasia (11), and intestinal metaplasia (3). Eradication of neoplasia and intestinal metaplasia was achieved in 95% and 88% of patients, and after additional escape endoscopic resection in 2 patients in 100% and 96%, respectively. Complications after RFA included melena (n = 1) and dysphagia (n = 1). After additional follow-up evaluation (median, 22 mo; interquartile range, 17.2 - 23.8 mo) no neoplasia recurred.

Conclusions: This European multicenter study showed that early neoplasia in Barrett's esophagus can be treated effectively and safely with RFA, in combination with prior endoscopic resection of visible lesions.