



Radiofrequency Ablation as a Treatment of Dysplastic Barrett's Esophagus

A Technology Assessment

Addendum, June 2011

The California Technology Assessment Forum (CTAF) assessed this topic at its meeting on February 17, 2010. The recommendations made at this meeting were:

- RFA for the treatment of Barrett's Esophagus (BE) meets CTAF Criteria 1-5 for the treatment of individuals with high grade dysplasia (HGD).
- RFA for the treatment of BE does not meet CTAF Criteria 4-5 for the treatment of individuals with low grade dysplasia (LGD).

At this meeting a move to table the CTAF vote on this topic was approved.

On June 2, 2010 at the next CTAF meeting, it was moved to reconsider the recommendation for HGD. The panel voted to approve the recommendation for high-grade dysplasia:

RFA for the treatment of BE meets CTAF criteria 1-5 for the treatment of individuals with HGD.

As there is a degree of uncertainty surrounding the recommendation for LGD, it remains tabled until additional information is available.



CTAF is now asked to readdress the question of RFA for the treatment of LGD. In the interim, the American Gastroenterological Association (AGA) has published its position statement on the management of Barrett's Esophagus as well as the accompanying technical reviews^{1,2} (Attachment 1, Attachment 2). In addition, TEC has published an evaluation of RFA for nondysplastic or low grade dysplastic Barrett's esophagus.

Since the time of the last CTAF review, no new randomized trials evaluating long term clinical outcomes have been published so the AGA guidelines are based on the existing evidence.

Several areas of controversy/debate remain. First, the risk of progression from low-grade dysplasia in Barrett's esophagus to either high grade dysplasia or adenocarcinoma remains controversial because it is difficult to differentiate dysplasia from nondysplastic Barrett's Esophagus and to accurately reproduce the degree of dysplasia. Because there is poor intra-observer correlation in the diagnosis of LGD, the AGA recommends that "the diagnosis of dysplasia in Barrett's esophagus should be confirmed by at least one additional pathologist, preferably one who is an expert in esophageal histopathology."

The AGA recommends "endoscopic eradication therapy with RFA [or other methods] rather than surveillance for patients with confirmed high-grade dysplasia within Barrett's esophagus." This is a strong recommendation with moderate quality evidence.



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The AGA does not make a formal recommendation (which would include the strength of the evidence and the quality of the evidence) about the endoscopic treatment of low grade dysplasia. In their review of the literature on treatment of LGD (primarily focusing on the Shaheen study³, they state that “ablative therapies can eradicate low grade dysplasia in the short-term for the majority of patients, but the reports do not establish the benefit of that eradication....In the absence of long-term studies showing efficacy, it is not clear that the potential benefit of ablation in reducing cancer risk for patients who have Barrett’s Esophagus with low-grade dysplasia warrants the risks and substantial expense of the ablative procedures”² (Attachment 2).

In the position statement, the AGA suggests that endoscopic eradication therapy could be a therapeutic option for patients with confirmed LGD in Barrett’s, acknowledging that there are controversies about the management of dysplasia in this population and that the risk of progression to cancer can vary. The AGA supports “shared decision making” with respect to whether or not endoscopic eradication or surveillance is preferred for each individual¹ (Attachment 1).

The TEC assessment of RFA of nondysplastic or low-grade dysplastic Barrett’s Esophagus was published in February, 2011⁴. They concluded that the evidence was insufficient to show that RFA plus surveillance achieves a better net health outcome than surveillance alone among patients with LGD and Barrett’s Esophagus.

CONCLUSION:

In summary, there is no new primary evidence since the last CTAF evaluation of RFA for the treatment of LGD in patients with Barrett’s esophagus. The AGA has published



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guidelines for the management of Barrett's esophagus. They do not make a formal recommendation about the treatment of LGD in patients with Barrett's Esophagus; they acknowledge the remaining controversies and suggest it as an option in the context of shared decision making.

RECOMMENDATION

In summary, the CTAF recommendation remains the same as it was in the February, 2010 meeting.

- RFA for the treatment of BE does not meet CTAF Criteria 4-5 for the treatment of individuals with low grade dysplasia (LGD).

RECOMMENDATIONS OF OTHERS

Blue Cross Blue Shield Association (BCBSA)

The BCBSA Technology Evaluation Center (TEC) has not conducted an assessment of radiofrequency ablation for the treatment of low grade dysplasia in Barrett's Esophagus.

Centers for Medicare and Medicaid Services

A search of the CMS web site resulted in the determination that neither an NCD nor an LCD has been developed for the use of this technology.

American Gastroenterological Association (AGA)

The AGA has been invited to provide an opinion regarding the use of this technology and a representative to attend the meeting and provide testimony.

American Society of Gastrointestinal Endoscopy (ASGE)



ASGE has been invited to provide an opinion regarding the use of this technology and a representative to attend the meeting and provide testimony.

Society of American Gastrointestinal and Endoscopic Surgeons (SAGES)

SAGES has been invited to provide an opinion regarding the use of this technology and a representative to attend the meeting and provide testimony.

SAGES is currently in the process of updating their guidelines. A representative will not be attending the meeting.

American College of Gastroenterology (ACG)

The AGG has been invited to provide an opinion regarding the use of this technology and a representative to attend the meeting and provide testimony.

American Cancer Society (ACS)

The ACS does not currently have an opinion regarding the use of this technology. The absence of ACS comments reflects neither favorably or unfavorably on this procedure. A representative will not be attending the meeting.

Association of Northern California Oncologists (ANCO)

ANCO was invited to provide an opinion regarding this technology and to have a representative participate and provide testimony at the meeting.

Medical Oncology Association of Southern California (MOASC)

MOASC was invited to provide an opinion regarding this technology and to have a representative participate and provide testimony at the meeting.

National Comprehensive Cancer Network (NCCN)

Current NCCN guidelines do not address the use of this technology.

ABBREVIATIONS USED IN THIS REVIEW



CALIFORNIA TECHNOLOGY ASSESSMENT FORUM™

CTAF	California Technology Assessment Forum
BE	Barret's Esophagus
HGD	High grade dysplasia
LGD	Low grade dysplasia
RFA	Radiofrequency Ablation
AGA	American Gastroenterological Association
TEC	Technology Evaluation Center

ATTACHMENTS

1. AGA, Spechler SJ, Sharma P, Souza RF, Inadomi JM, Shaheen NJ. American Gastroenterological Association medical position statement on the management of Barrett's esophagus. *Gastroenterology*. Mar 2011;140(3):1084-1091.
2. Spechler SJ, Sharma P, Souza RF, Inadomi JM, Shaheen NJ. American Gastroenterological Association technical review on the management of Barrett's esophagus. *Gastroenterology*. Mar 2011;140(3):e18-52; quiz e13.

REFERENCES

1. **AGA, Spechler SJ, Sharma P, Souza RF, Inadomi JM, Shaheen NJ. American Gastroenterological Association medical position statement on the management of Barrett's esophagus. *Gastroenterology*. Mar 2011;140(3):1084-1091.**
2. **Spechler SJ, Sharma P, Souza RF, Inadomi JM, Shaheen NJ. American Gastroenterological Association technical review on the management of Barrett's esophagus. *Gastroenterology*. Mar 2011;140(3):e18-52; quiz e13.**
3. **Shaheen NJ, Sharma P, Overholt BF, et al. Radiofrequency ablation in Barrett's esophagus with dysplasia. *N Engl J Med*. May 28 2009;360(22):2277-2288.**
4. **2011; <http://www.bcbs.com/blueresources/tec/>, 2011.**