

DIAGNOSING BARRETT'S ESOPHAGUS



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PATIENT HISTORY

The patient is a 61-year-old male with long standing gastroesophageal reflux and Barrett's Esophagus. Thirteen years ago he had a Nissen fundoplication to treat medication resistant reflux symptoms. Ten years ago he had endoscopic Nd:YAG laser ablation of the Barrett's epithelium, but had a recurrence of Barrett's with low grade dysplasia. Laser ablation was repeated with complete re-epithelialization. However, several years later the Barrett's again recurred. He had an esophagogastroduodenoscopy performed at this time for surveillance biopsies.

PROCEDURE

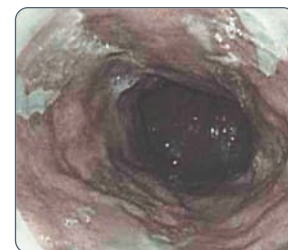
At endoscopy, there were esophageal mucosal changes secondary to established long-segment Barrett's Esophagus. It extended from 35 cm from the incisors to 40 cm from the incisors, where the gastric folds were observed. There was circumferential salmon-colored mucosa as well as tongues extending proximally. Retroflexion examination of the stomach revealed an intact fundoplication. Examination with White Light and Narrow Band Imaging did not reveal evidence of nodularity or neoplasia. Random biopsies were obtained using the Radial Jaw® 4 Large Capacity Biopsy Forceps without a spike from four quadrants at two levels: 1.5 cm and 3.5 cm proximal to the gastroesophageal junction. The patient tolerated the procedure well.

POST-PROCEDURE

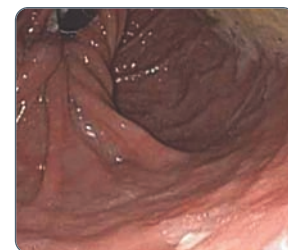
The results of the histology was reviewed with the patient. The more distal biopsies were indefinite for dysplasia and the more proximal biopsies were negative for dysplasia. In light of the history of low grade dysplasia and current biopsies indefinite for dysplasia, the patient opted to undergo a radio frequency ablation (HALO360 System/Barrx) of the Barrett's epithelium.



Endoscopic view of proximal margin of Barrett's Esophagus.



Narrow band imaging view of proximal margin of Barrett's Esophagus.



Retroflex view of the fundus demonstrating the intact fundoplication.



Narrow band view of Barrett's Esophagus with Radial Jaw 4 Large Capacity Biopsy Forceps.

GASTROENTEROLOGIST DISCUSSION

The Radial Jaw® 4 Large Capacity Biopsy Forceps was chosen for this procedure to maximize the amount of tissue available to the pathologist in evaluating dysplasia. The larger cup size of the Radial Jaw 4 Large Capacity Biopsy Forceps permits the use of a standard gastroscope with a 2.8 mm diameter working channel instead of using a "jumbo" forceps, requiring a larger therapeutic endoscope with a 3.7 mm working channel.

While most research protocols (and the recommendations based on them) use "jumbo" forceps requiring a 3.7 mm working channel, in practice, most gastroenterologists use standard size scopes (2.8 mm working channel) for EGD. The standard size endoscope is smaller and has the advantages of both better patient tolerance and better tissue targeting because of its increased maneuverability.

The larger cup size of the Radial Jaw 4 Large Capacity Biopsy Forceps brings the advantage of an increased tissue sample size while still being compatible with standard 2.8 mm EGD scopes. In effect the Radial Jaw 4 Large Capacity Biopsy Forceps are the "jumbo" forceps for a standard size scope.

PATHOLOGIST DISCUSSION

In this case, the patient had previously undergone ablation therapy. In this instance, it is important to get to the cells that might be buried below the re-epithelialized surface because you can have Barrett's or dysplastic epithelium below the normal re-epithelialized squamous surface. For this purpose, a larger forceps that can get a deeper bite would be preferable.

In general terms, the larger the specimen, the easier it is to orient for the lab, the more tissue we have to evaluate as a pathologist, and the more definitive the diagnosis that can be rendered. All of this helps convey the most accurate information to the gastroenterologist.

We have been using the new Radial Jaw 4 Large Capacity Biopsy Forceps at this facility for about a year. During that time, the specimens at Temple appear to be, in general, a little bigger than some years ago. More than that, they are significantly bigger than those from outside institutions that get sent to us for consultation.



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DVG2280 April 2009
ENDO-150409-AA July 2013