

Cellvizio Enables Real-Time Diagnosis of Intestinal Metaplasia

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Technology Review

Optical biopsy with probe-based Confocal Laser Endomicroscopy (pCLE) is an advanced technology that provides microscopic views of the mucosa. Images are obtained by scanning with a probe that is passed through the working channel of an endoscope. This technology makes it possible to image individual cells and tissue architecture, allowing endoscopists to make real-time diagnostic assessment of in vivo histology, thus, allowing the endoscopist to examine much more mucosa at a microscopic level than is possible with random biopsies.



Case Report

A 58-year-old obese female was referred by her primary care physician for obesity and heartburn. She had been previously diagnosed with symptomatic GERD and a hiatal hernia, but there was no history of intestinal metaplasia (IM) or malignancy. She was on a PPI program, which initially gave her good symptom relief, but then developed breakthrough symptoms consisting of food and liquid refluxing into her mouth at night and when bending over. On 10/31/14 an EGD with pCLE was performed and pCLE imaging showed published image criteria for IM (Fig. 1 and 2). The physical biopsy that was taken at the time of the procedure came back negative. The pathologist stated that the squamous junctional mucosa had mild reactive changes, mild chronic inflammation and rare eosinophils, suggestive of reflux.

Summary

pCLE enabled real-time diagnosis of IM with presence of goblet cells when traditional tissue biopsies came back negative. The images produced by pCLE correlated with the published image criteria. She has had her hiatal hernia repaired and she will now be followed with serial screening EGD's. Without pCLE, this pre-cancerous condition would have been missed.

"As we prepare patients for anti-reflux surgery, Cellvizio makes it possible for us to rule-in or rule-out the presence of pre-cancerous cells with more diagnostic accuracy and gives us the ability to perform improved surgical intervention." Joseph J. Burnette, MD

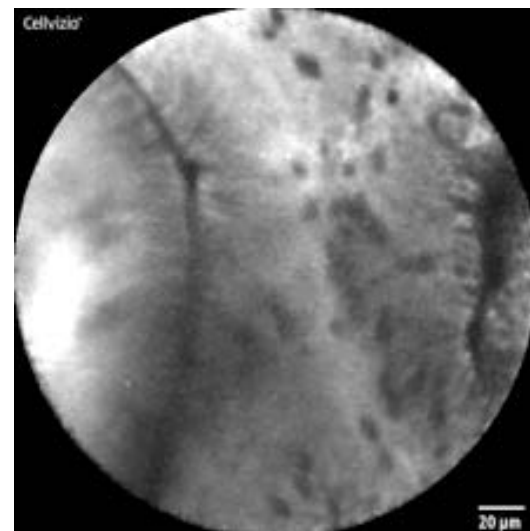
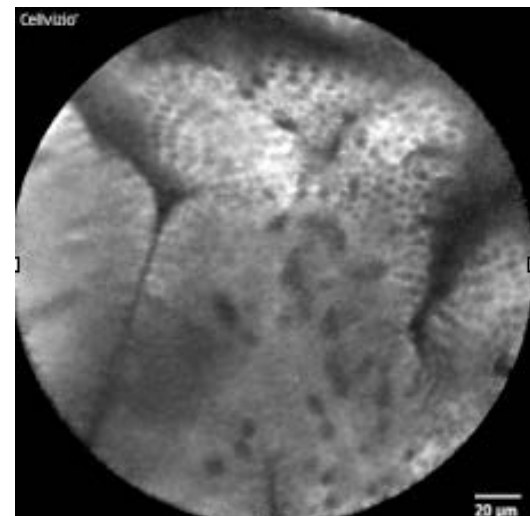


Fig 1, 2; pCLE Images showing Intestinal Metaplasia with goblet cells