

# Cellvizio Enables Real-Time Diagnosis of Dysplasia

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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 the endoscopist to make real-time diagnostic assessment of in vivo histology, thus, allowing them to examine much more mucosa at a microscopic level than what is possible with random biopsies.



## Case Report

A 65 year old male with history of Barrett's Esophagus was seen and underwent a Nissen fundoplication for recurrent GERD symptoms. He was then seen for several follow up ablations from 2011 to 2015 for recurrence of Barrett's Esophagus.

A follow up procedure was performed on July 9, 2015 when the patient was brought in for exhibiting dysphagia post Nissen fundoplication. After initial EGD examination there were a few spotty remnants of what appeared to be Barrett's approximately 1 cm above the GE Junction. At this point the Cellvizio probe was used to interrogate these areas. Upon further investigation of the margins with endomicroscopy, there were obvious signs of dysplastic tissue, at which point the dysplastic areas were ablated twice using 13 joules with HALO.

The patient appears to be doing well with swallowing, while exhibiting no signs of dysphagia. Since this procedure was performed the patient hasn't complained of recurrent symptoms and will be brought back in two months for follow up EGD with biopsy and possible endomicroscopy.

## Summary

pCLE enabled real time investigation of Barrett's tissue to help identify dysplasia and define the margins for RFA ablation. Additionally, pCLE significantly shortened the timeline of treatment for the patient as the RFA ablation was able to be performed just after the dysplasia was seen on Cellvizio.

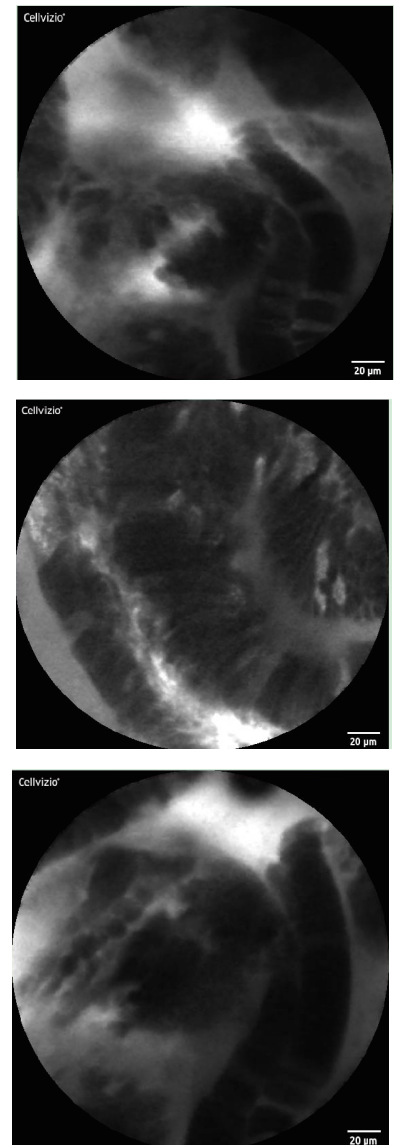


Fig 1, 2 & 3:  
pCLE images of dysplasia  
showing epithelial surface with  
saw-toothed glands unequal in  
size and shape