

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 70 year old male with history of colon polyps and Barrett's Esophagus was seen. The patient underwent Nissen fundoplication and was admitted for EGD with possible Cellvizio and colonoscopy. Patient has been in for several EGD's in years past with biopsies taken but none were suspicious of dysplasia.

The patient was admitted for routine follow up EGD/Colonoscopy for Barrett's and Polyps. Upon examination with white light, there appeared to be some areas of Barrett's at the GE junction. Cellvizio Endomicroscopy was used to examine the GE junction where multiple areas of Barrett's along with an area of dysplasia were discovered. A single superficial biopsy was taken from this area. With this finding, the patient was then immediately ablated with the Halo-60 device applied at 13 joules.

Pathology examined the one biopsy taken post procedure and confirmed the single specimen to be an irregular fragment of tan, soft tissue. Since the the initial ablation, the patient underwent an additional EGD with biopsy to confirm the absence of dysplasia and Barrett's.

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.

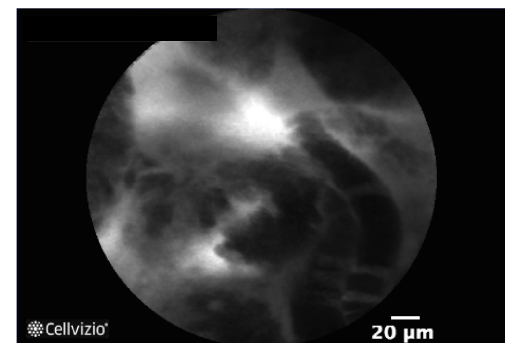
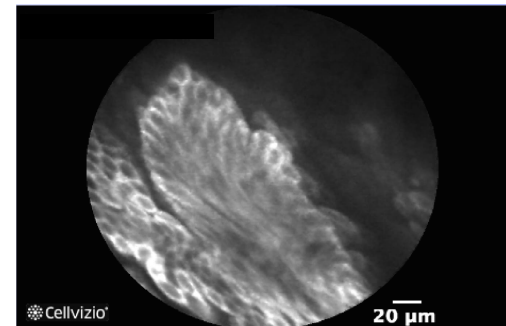


Fig 1 & 2:
pCLE images showing dysplasia