

Peek-a-Boo, I See You

Non-Invasive Visualization of the Small Intestine



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BACKGROUND

The use of capsule endoscopy (CE) allows for a non-invasive visualization of approximately 20 feet of small bowel. This cannot be seen during colonoscopy or esophagogastroduodenoscopy (EGD). The CE is an encapsulated wireless, disposable, miniature video camera the size of a multivitamin. It is able to take 50,000 - 60,000 images in 8.5 hours. CE plays an integral role in diagnosis within the oncology setting.

PROCEDURE

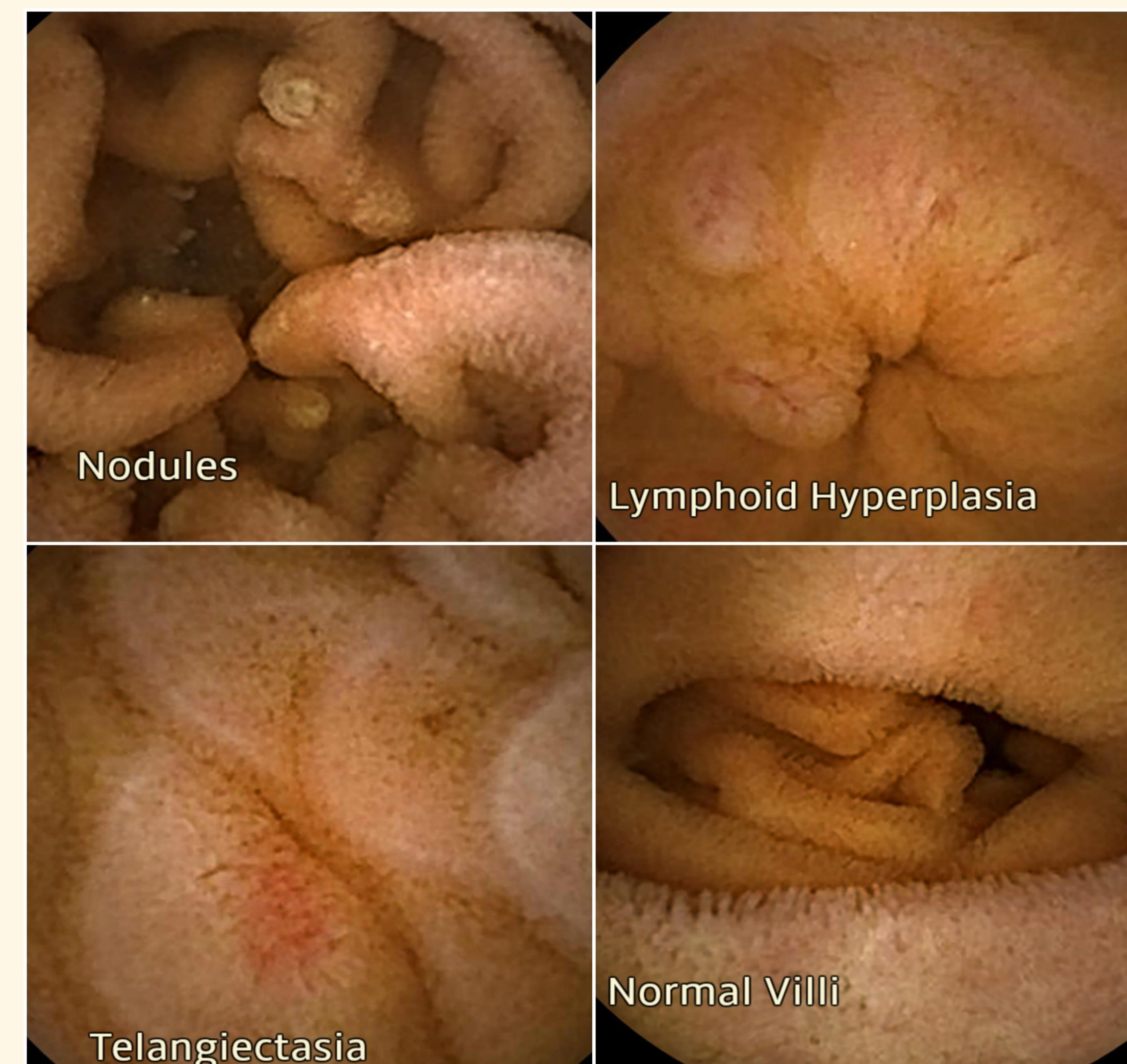
The nurse provides patient education prior to the procedure, and assesses the patient's ability to swallow the capsule. CE does not require sedation. The small recording device is attached to the patient via belt. This captures the images that are transmitted from the CE. The patient swallows the capsule. After CE image transmission is completed, the patient returns to the office (+/- 8 hours).

RESULTS

Three case studies demonstrate the impact of CE:

- A patient was diagnosed with lymphoma by duodenal biopsy. CE was used to determine extent of small bowel involvement. Note no other modalities (PET/CT) were able to detect small bowel lesions. CE revealed nodularity in the small bowel. After completion of six cycles of chemotherapy, the CE displayed resolution of small bowel nodules.
- A patient presented with anemia and heme occult positive stool. Colonoscopy and EGD did not reveal etiology of GI bleeding. CE was performed and diagnosed telangiectasias in the small bowel.
- A patient who was status-post thyroidectomy for thyroid cancer was

prescribed oral calcium and thyroid supplementation with multiple hospitalizations due to hypocalcemia and hypothyroidism. To rule out non-compliance with medications as a potential etiology, CE was performed. Grossly abnormal small bowel was detected, leading to diagnosis of celiac disease leading to malabsorption.



CONCLUSIONS

Capsule endoscopy is an effective modality for small bowel evaluation that does not require sedation.

In comparison, other imaging modalities are limited in small bowel assessment.

This case series affirms the utility of CE to diagnose and monitor small bowel tumors, bleeding, and lesions.

REFERENCES

Given imaging LTD