

IMAGE OF THE MONTH

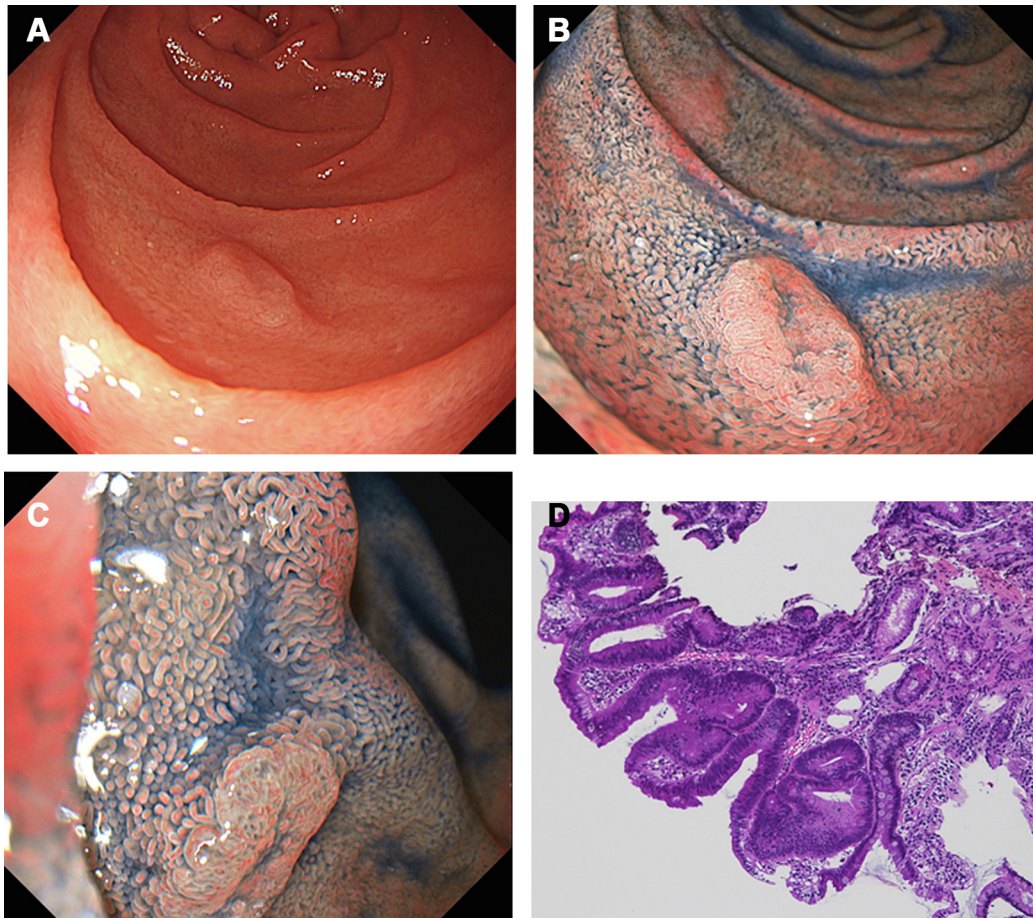
Texture and Color Enhancement Imaging With Indigo Carmine Dye Effectively Delineates Duodenal Adenoma



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Screening esophagogastroduodenoscopy (GIF-XZ1200 with the EVIS X1 video system; Olympus Medical Systems, Tokyo, Japan) performed on a 72-year-old man revealed a 7-mm isochromatic, slightly elevated lesion with a central depression located in the descending part of the duodenum on white-light imaging (Figure A). On texture and color enhancement imaging (TXI) mode 1 with indigo carmine dye (chromo-TXI), the lesion was delineated as a neoplastic lesion with (1) a clear boundary between the surrounding villi and (2) a regular surface structure (Figure B and Figure C, at low and moderate magnifications, respectively). Cold forceps polypectomy was performed on the suspicion of an adenoma for biopsy and endoscopic diagnosis. Histologic examination showed the lesion to be low-grade adenoma (Figure D).

While rare, duodenal epithelial tumors (SNADET) are increasingly detected because of advances in endoscopic technology, including TXI, a recently developed technique that enhances brightness, surface irregularities, and subtle color changes. Given that differentiation between adenoma and carcinoma during magnifying observation with image-enhanced endoscopy is part and parcel of treatment strategy for SNADET, the images with chromo-TXI offered here should provide a clear illustration of how TXI may be

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effectively used to highlight SNADET and a rationale for its use in future investigations.

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Ethical Statement:

The corresponding author, on behalf of all authors, jointly and severally, certifies that their institution has approved the protocol for any investigation involving humans or animals and that all experimentation was conducted in conformity with ethical and humane principles of research.