

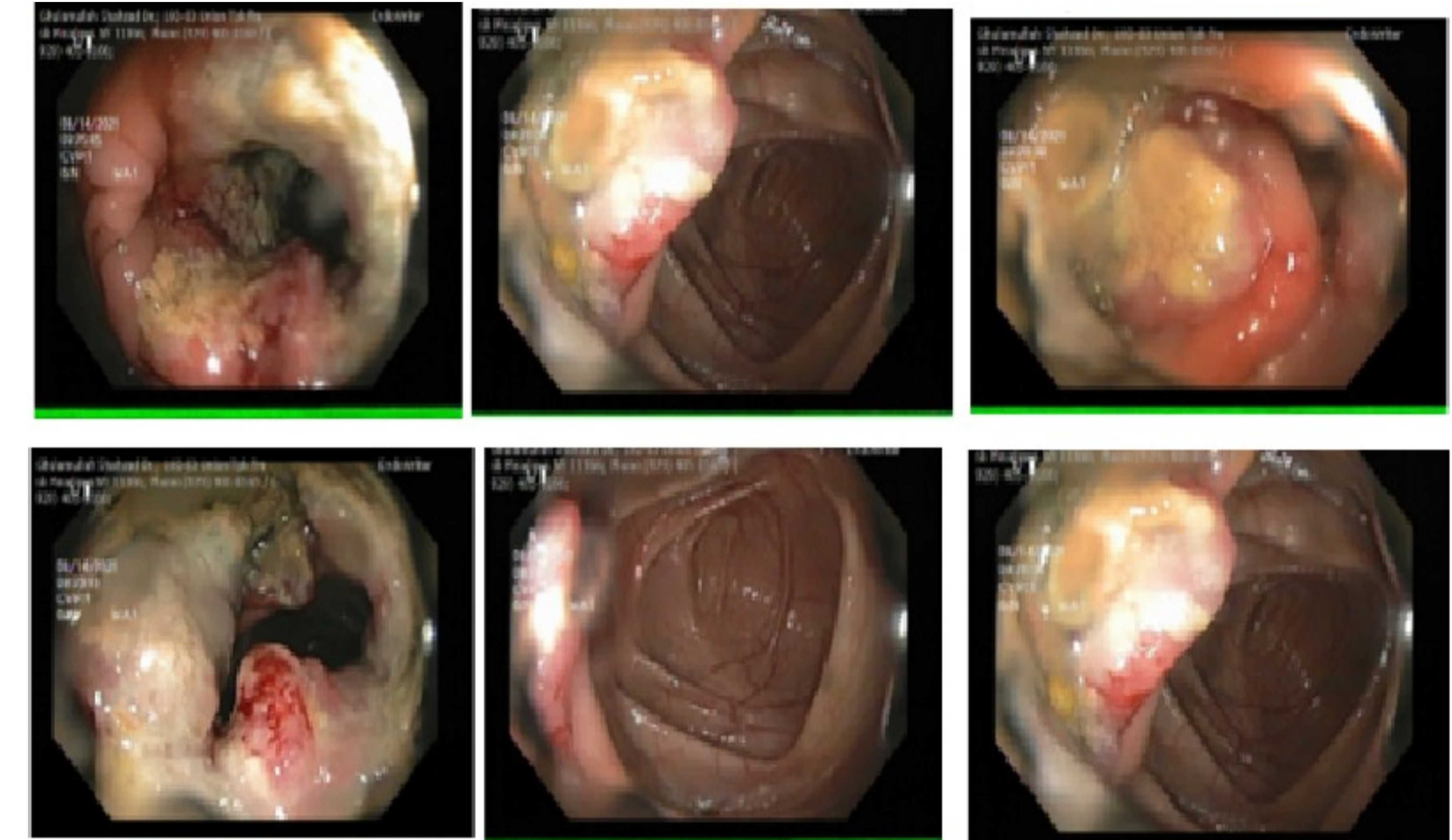
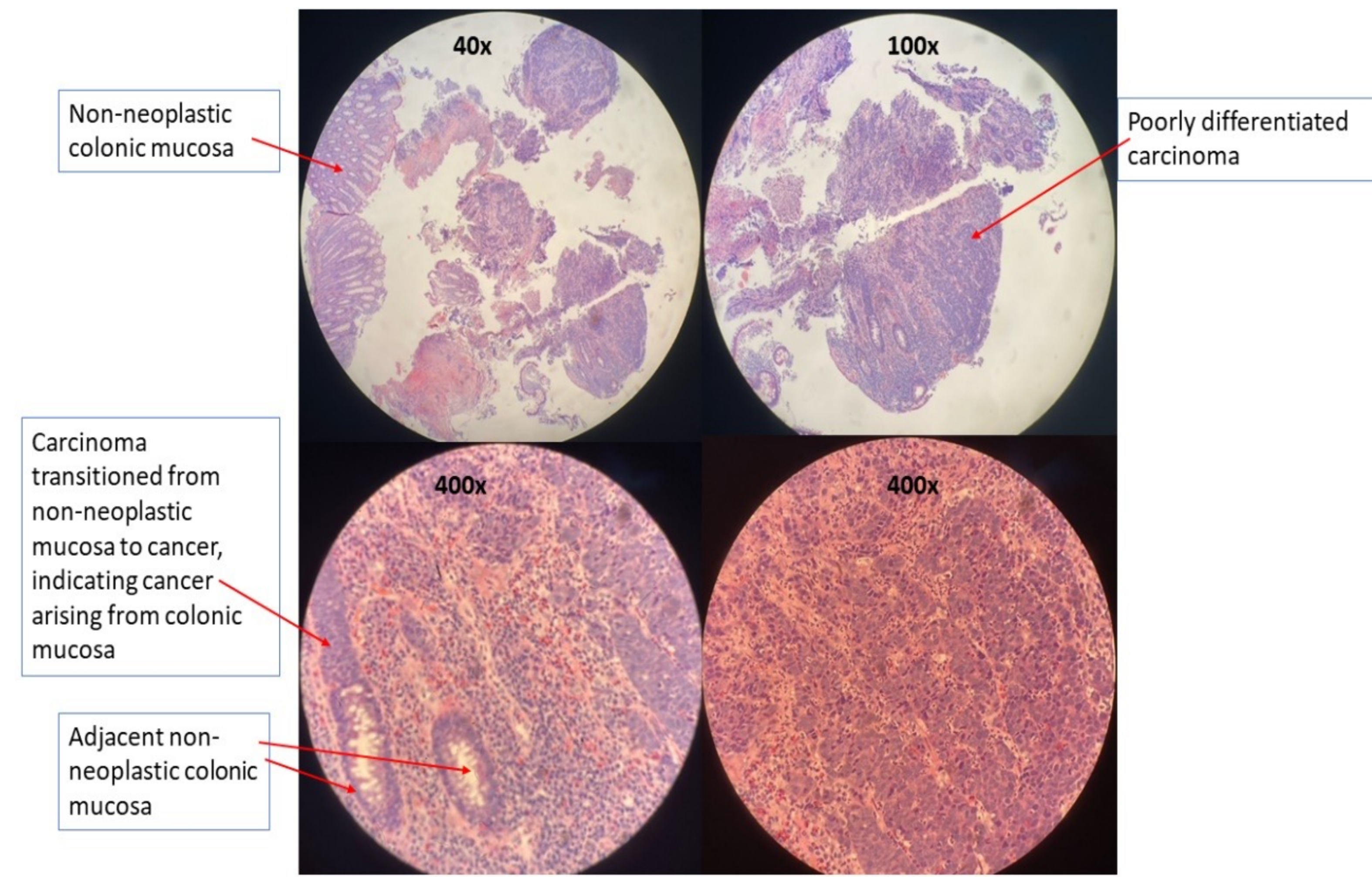
Mixed Adeno-Neuroendocrine Carcinoma (MANEC) of Colon: Rare Differential Diagnosis for Iron Deficiency Anemia

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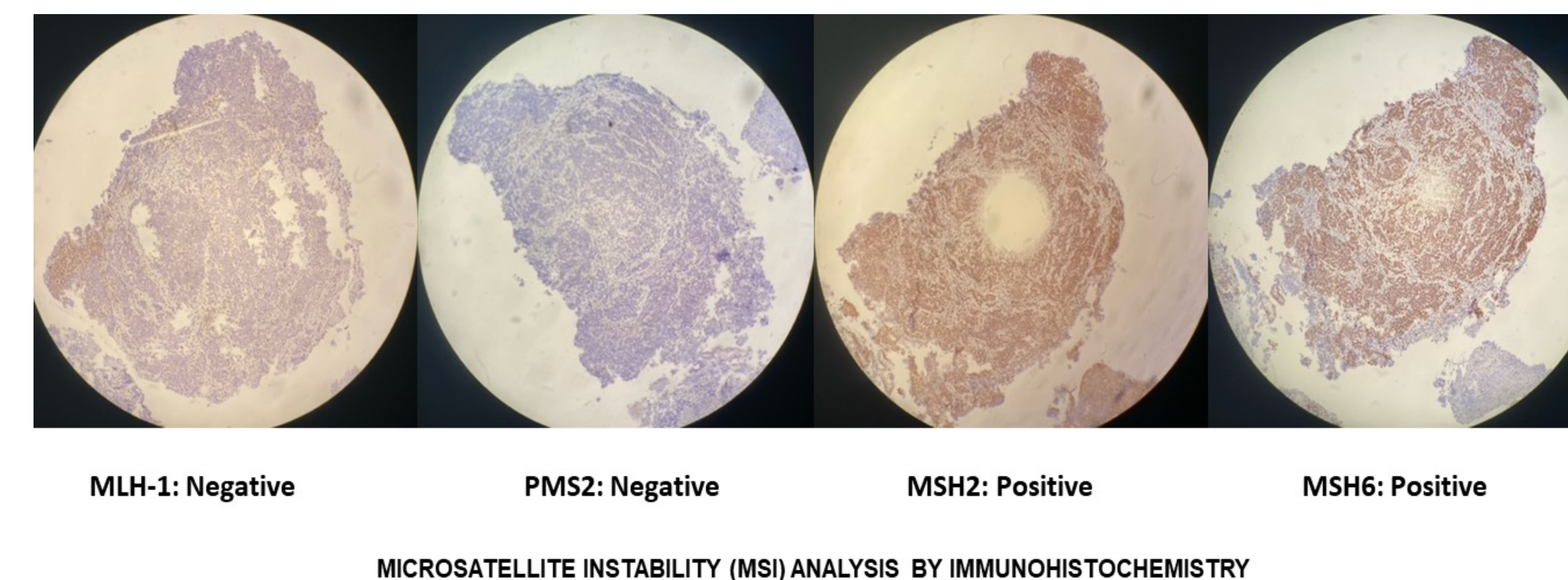
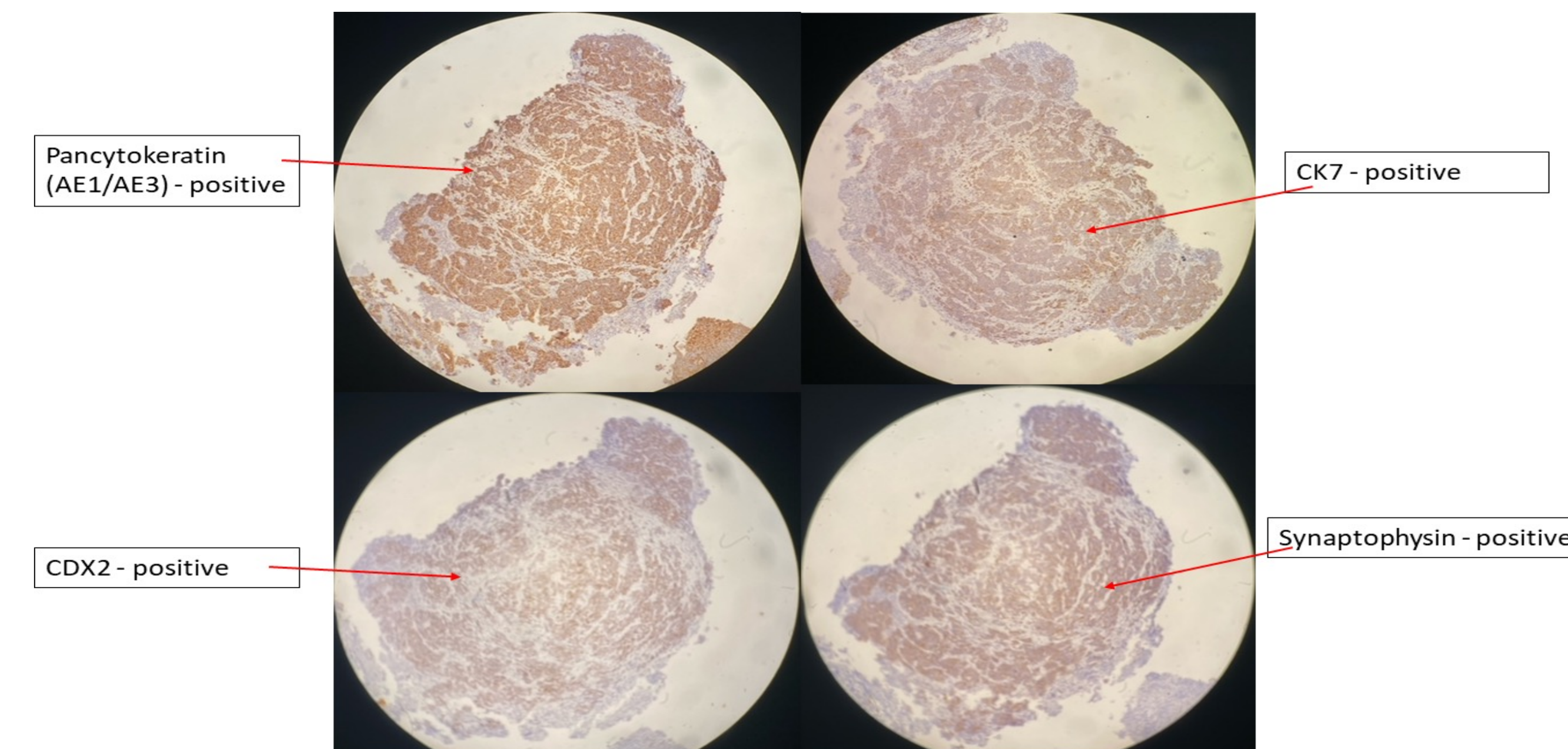
Introduction

- Colonic Mixed Aden-Neuroendocrine carcinoma (MANEC) is a rare but highly aggressive tumor. In English Literature, only ten cases or fewer have been reported of this neoplasm, with the prognosis still unfavorable.
- By definition, mixed adenoneuroendocrine carcinomas comprise at least 30% of both a neuroendocrine and an adenocarcinomatous component.
- Cases are typically diagnosed at advanced stages, and the age of presentation is younger than the average age of colorectal adenocarcinoma (~60 years old).



Case Description/Methods

- HPI:** A 53-year-old woman was referred to us by her hematologist, who ordered CT / pelvis due to her new onset of iron deficiency anemia. A CT scan showed irregular bowel wall thickening of proximal ascending colon with infiltration and nodularity of surrounding fat suspicious of colon neoplasm.
- PMH:** The patient has diabetes mellitus and hypertension.
- Colonoscopy** showed poorly differentiated carcinoma with ulceration in large bowel mucosa; morphologically, the high-grade poorly differentiated malignant neoplasm was noted with ulceration.
- Histology and immunohistochemical studies** show the tumor cells are positive for AE1/3, CK7, synaptophysin, and CDX-2, while negative for CK20, chromogranin, and CD56. Ki-67 shows a high labeling index (-95%). The negative stain of tumor cells for MLH-1 and PMS2 can be associated with microsatellite instability-related germline mutation.



Discussion

- In 2010, the World Health Organization called the disease “Mixed adenoneuroendocrine carcinoma” for the first time.
- Metastasis can occur anywhere but is usually seen in the liver, regional lymph nodes, and rarely peritoneum.
- Chemotherapy treatment protocols are still not very well defined, the National Comprehensive Cancer Network has suggested using cisplatin or carboplatin and etoposide for treatment.
- Surgery remains to be the curative treatment in the event that the tumor is diagnosed at an early stage.

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