Atypical Colonic Polyp

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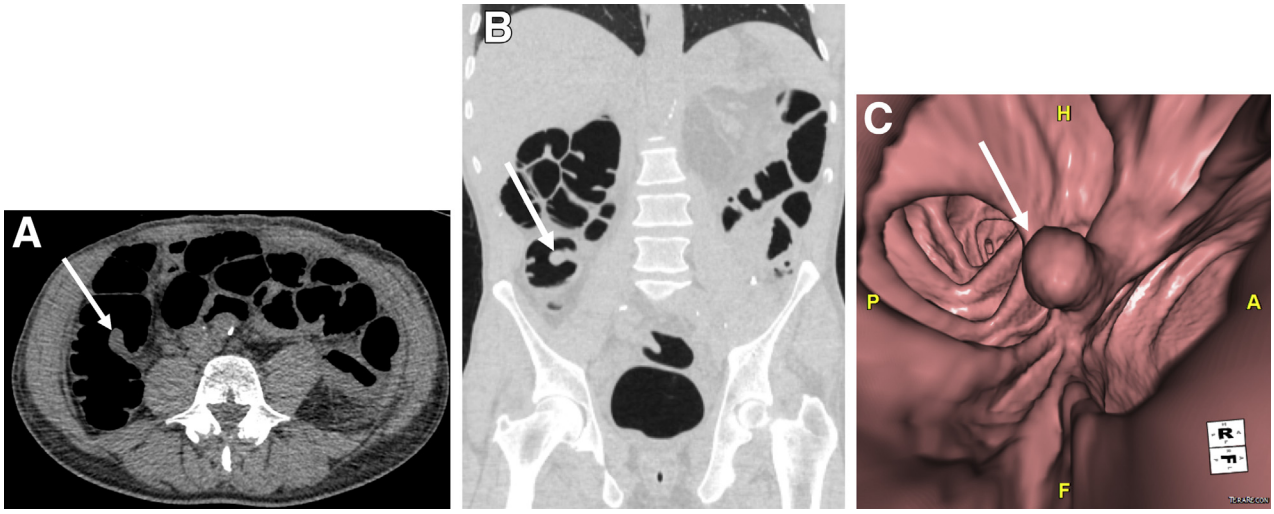

Question: A 71-year-old, asymptomatic man underwent incomplete colonoscopy for screening. He had a history of surgically resected retroperitoneal well-differentiated liposarcoma 10 years prior, with local recurrence as dedifferentiated liposarcoma 6 years later. Physical examination and laboratory tests were unremarkable. He underwent computed tomography colonography (CTC) to evaluate the colon segments not assessed by conventional colonoscopy. The CTC demonstrated a 3-cm pedunculated polyp in the ascending colon on the supine acquisition (Figure *A*, axial soft tissue window; *arrow*; Figure *B*, coronal lung window) and on 3-dimensional endoluminal view (Figure *C*, *arrow*). The polyp was homogeneous and showed soft tissue attenuation, with no fat attenuation (Figure *A*).

What is the diagnosis?

Look on page 32 for the answer and see the *Gastroenterology* web site (www.gastrojournal.org) for more information on submitting your favorite image to Clinical Challenges and Images in GI.

Conflicts of interest
The authors disclose no conflicts.

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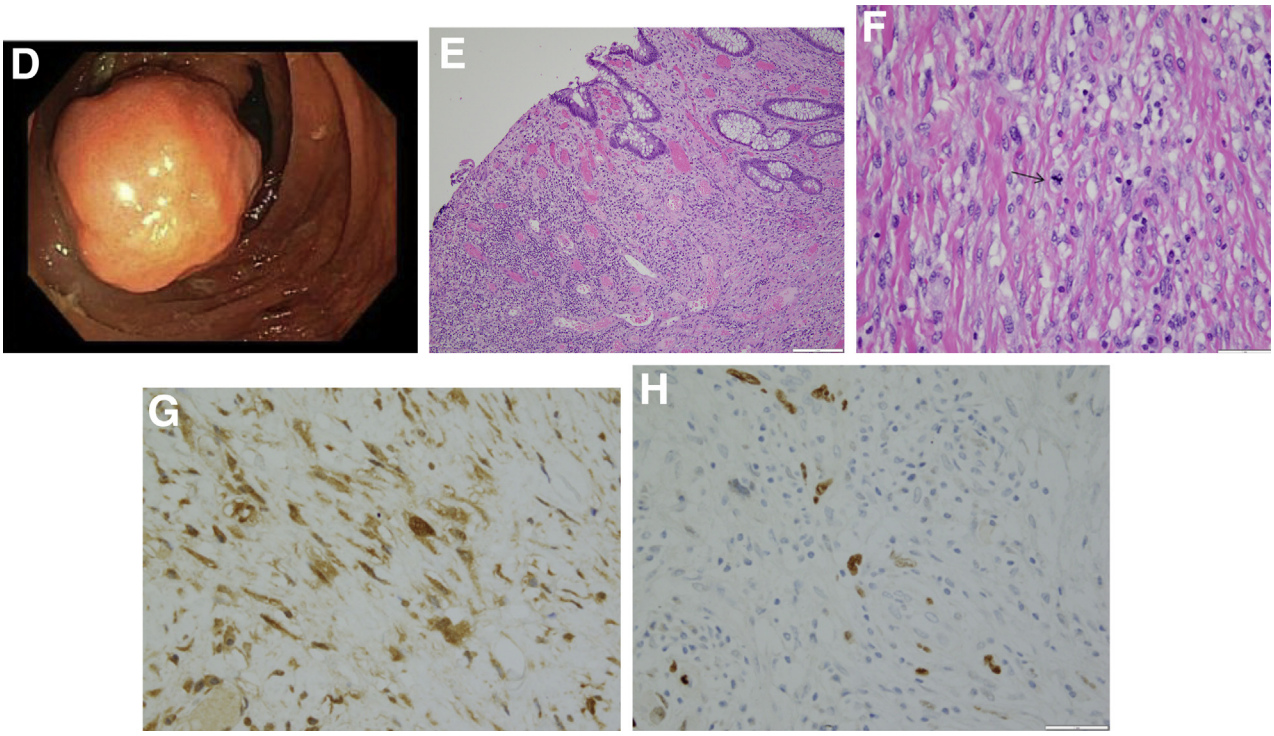
Answer to: Image 4 (Page 31): Recurrent Dedifferentiated Liposarcoma Presenting as a Pedunculated Colonic Polyp



The patient underwent a second conventional colonoscopy that confirmed a 3-cm polyp in the ascending colon (Figure *D*). The polyp was removed with a hot snare in piecemeal fashion without significant bleeding. Histopathology revealed a polypoid mass showing predominantly ulcerated mucosa with inflammation (Figure *E*; original magnification ×40; stain: hematoxylin and eosin). The stroma of the polyp demonstrated spindle cells with cytological atypia (Figure *F*; original magnification ×400; stain: hematoxylin and eosin; *black arrow* points to a mitotic figure). Immunohistochemical stains for CDK4 (Figure *G*) and MDM2 (Figure *H*) show positivity in the atypical cells confirming the diagnosis of recurrent dedifferentiated liposarcoma with negative margins.

Liposarcomas are mesenchymal tumors that originate from adipose precursors and correspond with the most common soft tissue sarcomas. Abdominal liposarcomas usually occur as large and bulky retroperitoneal masses. The most common subtypes are well-differentiated and dedifferentiated. These types share common genetic alterations, but dedifferentiated ones lack mature adipocytes and have a higher potential for metastatic disease and a poorer prognosis.[1] Dedifferentiation of a well-differentiated liposarcoma may occur, commonly in retroperitoneal tumors and after 8–14 years from the diagnosis.[2]

Liposarcomas of the colon are very rare, with <15 sporadic cases reported in the English literature. Only 7 pedunculated liposarcomas were described, all of which were primary and 3 of which were dedifferentiated. To our knowledge, a recurrent liposarcoma presenting as a pedunculated colonic polyp has not been previously reported and this is also the first case reported on CTC. The majority of colonic liposarcomas occurred in women (71%), with a mean age of 61.5 years (range, 41–84 years).[2,3] The most frequent location was ascending colon (57%) and their size varied from 3 to 12 cm. Patients may present with abdominal pain or hematochezia. The imaging features are nonspecific. Well-differentiated liposarcomas may demonstrate fat-attenuation on CT scans and signal dropout on fat suppression sequences on magnetic resonance imaging, mimicking benign lipomas. The other subtypes of liposarcoma may not present fat and may mimic primary adenocarcinoma.[2,3] The prognosis of colonic liposarcomas is unknown owing to the small number of cases reported and surgical resection is the mainstay treatment. These patients should be carefully monitored because recurrence is likely. Radiation therapy or chemotherapy can be offered in recurrent or more aggressive liposarcomas.[2,3]

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