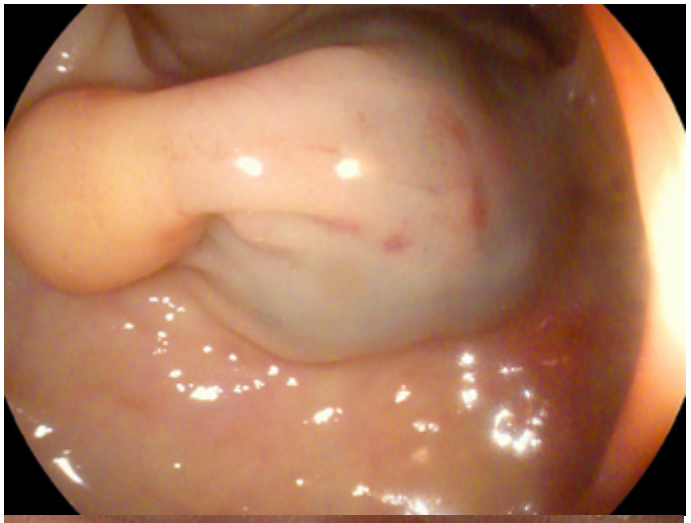
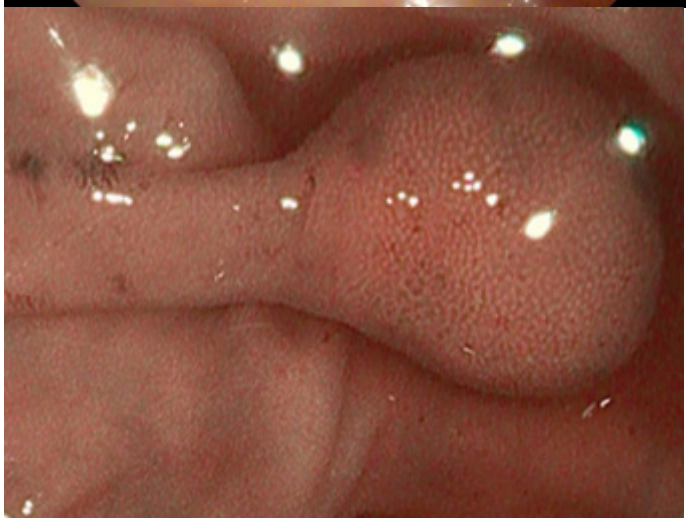
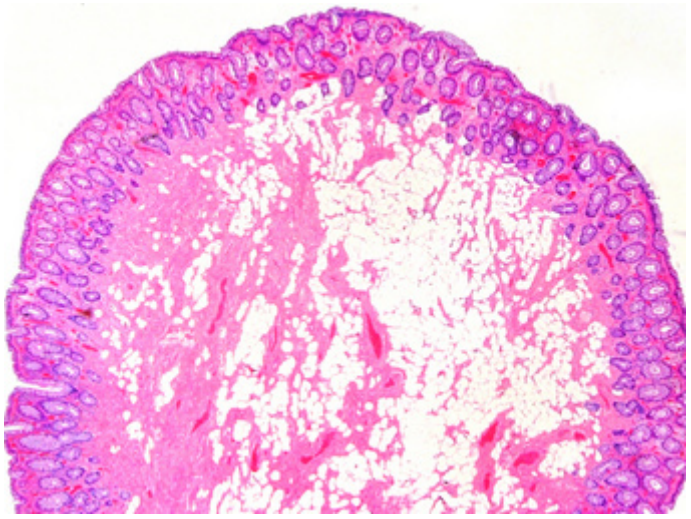
December 2020

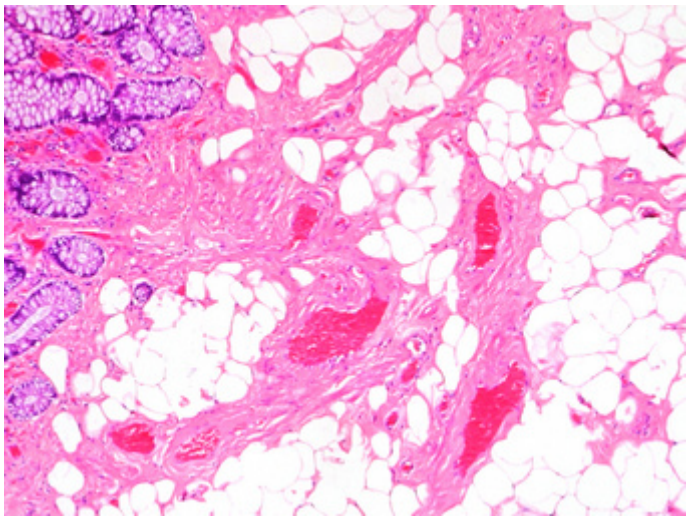
Polypoid lesion of the sigmoid colon in a 65-year-old female.

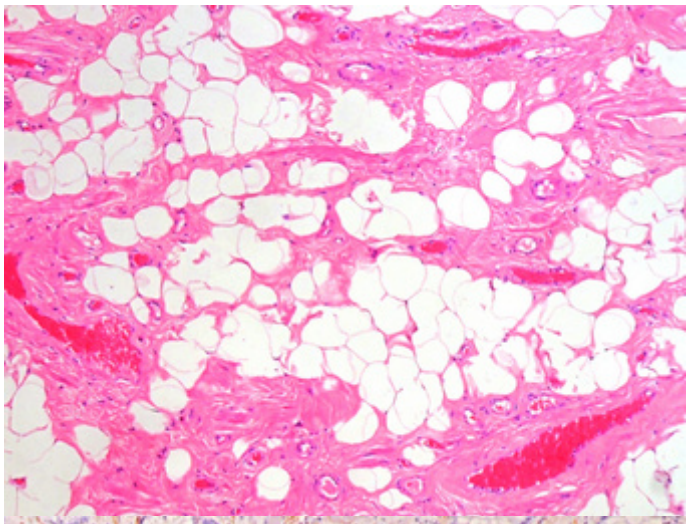
What is your diagnosis?

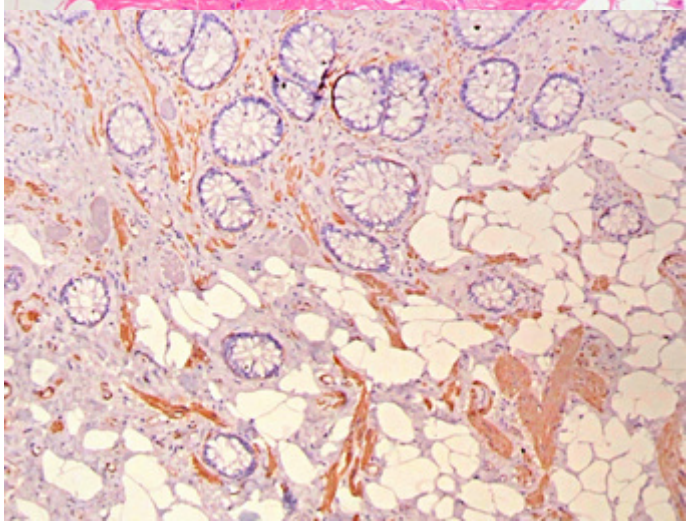












Diagnosis:

Angiomyolipoma.

Comment:

An asymptomatic 65-year-old woman is referred for local excision of a polypoid lesion located in the sigmoid colon. At colonoscopy, 25 cm from the anal verge, a pedunculated polyp with short stalk, smooth surface and maximum head diameter of 7 mm (Panels A-B) was removed by snare polypectomy.

Histology showed a nodular lesion, located in the submucosa, with low cellularity, consisting of lobules of mature adipose tissue, bundles of smooth muscle cells and thick walled blood vessels, without significant pleomorphism or atypia. No necrosis or mitotic activity were noted. The overlying mucosa showed normal glands, without dysplastic or hyperplastic aspects (Panels C-F). Immunohistochemistry revealed positivity for smooth muscle action (SMA; Panel G) and desmin, highlighting the smooth muscle and vascular components. Adipocytes showed normal S100 protein positivity. Melanocytic markers (HMB-45, Melan A) or CD117 were negative. Considering these findings, an adenomatous or hyperplastic polyp was excluded and a polypoid angiomyolipoma was diagnosed.

Angiomyolipomas are benign mesenchymal tumors, mostly arising in the kidneys of patients with or without tuberous sclerosis. Composed of an admixture of thick walled, hyalinized blood vessels, adipose and smooth muscle tissue, they are included in the group of PEComas and are believed to originate from perivascular epithelioid cells.

According to literature, angiomyolipomas occurring in the gastrointestinal tract are not associated with tuberous sclerosis and express melanocytic markers less often. Although benign, there have been reports of epithelioid angiomyolipomas, which have potential for local invasion, recurrence and distant metastases, but this has not been reported from tumours located in the gastrointestinal tract.

Differential diagnosis: Angiolipomas are also rare in the gastrointestinal tract. With similar clinical presentations and endoscopic findings, histologically they lack a smooth muscle component, but have a capillary vessel network, often with intraluminal fibrin thrombi. Very few cases of angiolipofibromas have been reported in the gastrointestinal tract. They can be distinguished from angiomyolipomas histologically by the presence of a fibrous component instead of smooth muscle tissue and they include a mixture of vascular structures of venous, arterial, lymphatic and capillary-type. Angiomyolipomas lack the lymphatic vascular component.

For further reading:

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