

Colonic Lymphangiomas

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Introduction:

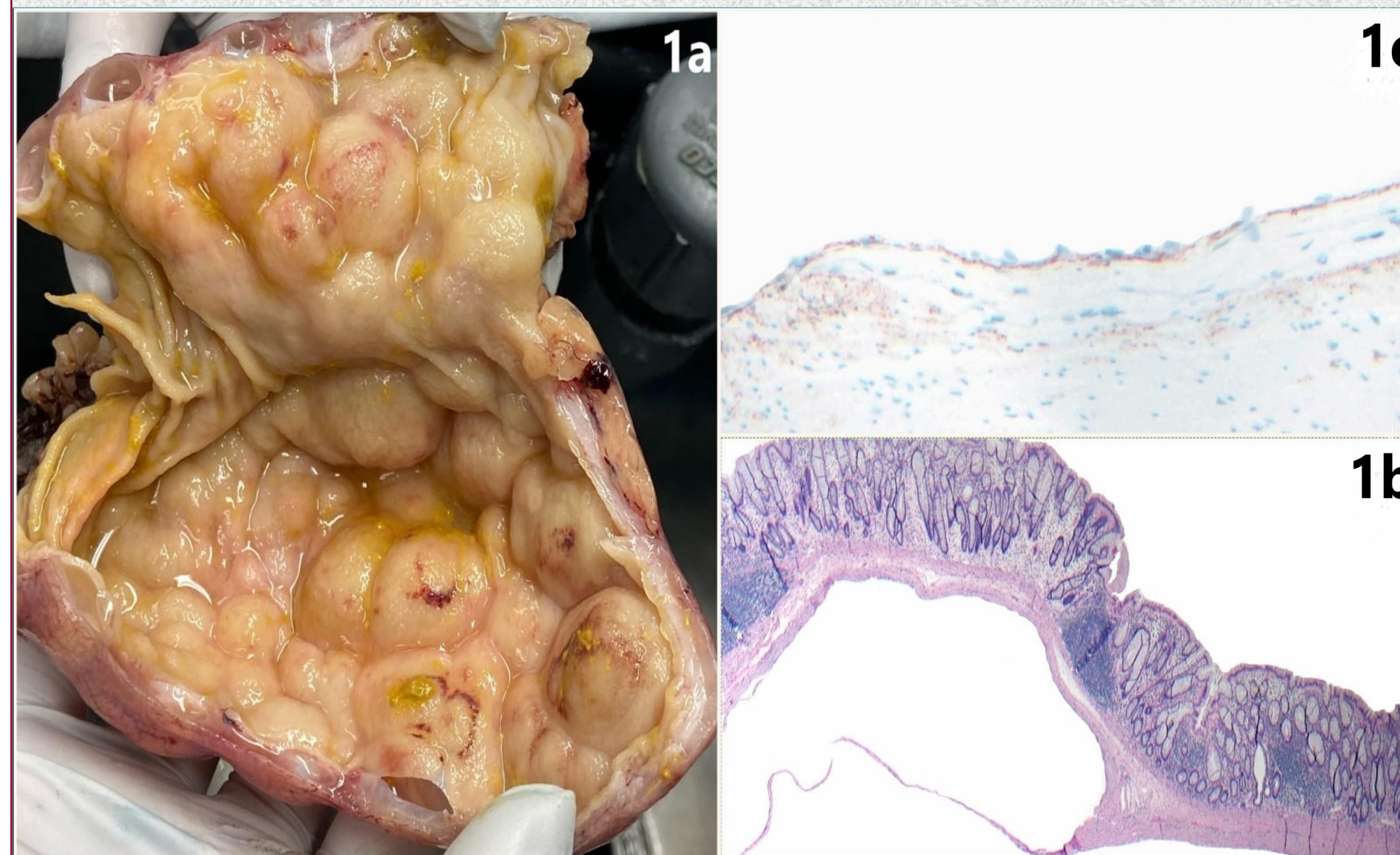
- Multiple colonic lymphangiomas (benign malformations of the lymphatic vessels) or colonic lymphangiomas (CL) is a rare clinical entity and mostly diagnosed incidentally.
- We present a case of CL presenting with free intraperitoneal air.

Case presentation :

- A 73-year-old male with history of diabetes mellitus and chronic kidney disease underwent CT abdomen and pelvis with IV contrast (for the evaluation of hematuria and renal cyst), which showed incidental finding of free intraperitoneal air.
- He had a history of recent colonoscopy which showed a large concentration of 'polyps' in the sigmoid, not amenable for endoscopic removal, with plans for future surgical resection.
- Subsequently the patient developed abdominal pain and nausea, and labs showed worsening leukocytosis 17K/uL. Repeat computed tomography (CT) abdomen revealed moderate free intraperitoneal air and innumerable colonic mucosal cysts of the very redundant sigmoid colon in the right upper quadrant.
- The patient underwent exploratory laparotomy, and although no perforation was seen, the sigmoid colon exhibited soft-tissue fullness. Given the future surgical plans and these operative findings, the patient is status post partial sigmoid colectomy with primary anastomosis.

Gross Findings and Histopathology :

- Grossly, the colon exhibited a nodular and somewhat polypoid mucosal surface. Sectioning revealed cystic spaces deep to the mucosa, filled with thin yellow appearing fluid (Figure 1a).
- Histologic sections demonstrated unremarkable colonic mucosal surfaces without epithelial dysplasia or serrated neoplasia, but within the submucosa, there are large cystic spaces extending into the muscularis propria, focally separated by thin fibrous septae (Figure 1b).
- The contiguous cystic spaces within the submucosa were noted to be lined by a bland and attenuated cell layer which showed immunoreactivity for CD31, CD34 and D2-40 (podoplanin) – an immunoprofile defining lymphatic space endothelium (Figure 1c); compatible with dilated lymphatic spaces and consistent with colonic lymphangiomas (CL).



Clinical Course:

- The patient underwent exploratory laparotomy, and although no perforation was seen, the sigmoid colon exhibited soft-tissue fullness, prompting partial sigmoid colectomy with primary anastomosis.
- The patient tolerated the procedure well and remained asymptomatic without further issues at post operative follow up.

Discussion:

- CL should be considered as a differential in patients with multiple aggregated mucosal lesions that appear as polyps on endoscopy.
- Speculation on etiology has ranged from developmental (failure to establish connections to lymphatic drainage sites), or seen secondarily after trauma or etiology which would disrupt normal lymphatic flow (i.e. prior surgeries, radiation, lymphatic obstruction secondary to adjacent mass lesion, or previous inflammatory processes).
- Free intraperitoneal air may suggest impending clinical decline in such patients. Surgical resection is the treatment of choice.

References:

- Chung WC, Kim HK, Yoo JY, et al. Colonic lymphangiomas associated with anemia. *World J Gastroenterol.* 2008;14(37):5760-5762

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