

Microcystic reticular schwannoma of the colon

Peripheral nerve sheath tumors (PNST) form the third commonest group of mesenchymal tumors within the gastrointestinal tract. They occur with a frequency of approximately 5%, which compares with 50% for gastrointestinal stromal tumors (GIST) and 30% for smooth-muscle neoplasms [1]. In 2008, Liegl et al. described 10 cases of microcystic reticular schwannoma as a distinct variant with predilection for visceral sites [2]. Herein, we present two additional tumors that were detected upon screening colonoscopy in asymptomatic patients.

Tumor A occurred within the sigmoid colon of a 70-year-old woman. The lesion, which measured 0.7 cm at largest diameter, presented as a well circumscribed, yet nonencapsulated submucosal growth with deep muscular extension; it was removed by surgical resection (● Fig. 1 a, b). Tumor B, which measured 1.3 cm at largest diameter, presented as a pedunculated lesion within the sigmoid colon of a 70-year-old man and was removed by snare polypectomy. This lesion was mainly located in the submucosa but extended into the mucosa causing entrapment of non-neoplastic crypts (● Fig. 2 a, b).

Upon histology, a characteristic reticular microcystic growth pattern with intersecting strands of spindle cells arranged around islands of myxoid or collagenous/hyalinized stroma was observed in both tumors. Tumor A, however, had additional areas indistinguishable from conventional schwannoma. Both tumors showed strong nuclear and cytoplasmic immunoreactivity for S-100 protein (● Fig. 2 c), but were negative for smooth muscle actin, desmin, CD34, and CD117 (KIT).

Microcystic reticular schwannoma represents a newly recognized benign variant of PNST predominantly affecting the gastrointestinal tract, which has to be differentiated from other mesenchymal tumors, such as GIST or smooth-muscle neoplasms [3]. Including our two cases, 15 tumors have been reported to date [1,2,4], six of which arose from the colorectum, three from the small bowel, and one from the stomach, respectively. Polypoid lesions are sufficiently treated by endoscopic resection, whereas local surgical excision is the treatment of choice for intramural tumors.

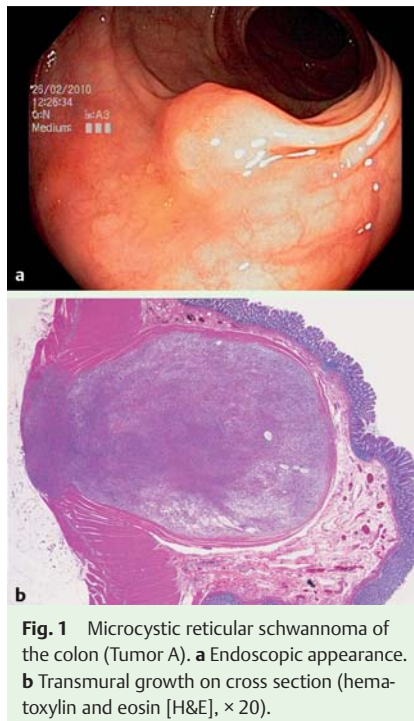


Fig. 1 Microcystic reticular schwannoma of the colon (Tumor A). **a** Endoscopic appearance. **b** Transmural growth on cross section (hematoxylin and eosin [H&E], $\times 20$).

Competing interests: None

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J. Kienemund¹, B. Liegl¹, F. Siebert², M. Jagoditsch³, E. Spuller¹, C. Langner¹

¹ Institute of Pathology, Medical University of Graz, Graz, Austria

² Department of Internal Medicine, Hospital of Barmherzige Brüder, St. Veit/Glan, Austria

³ Department of Surgery, Hospital of Barmherzige Brüder, St. Veit/Glan, Austria

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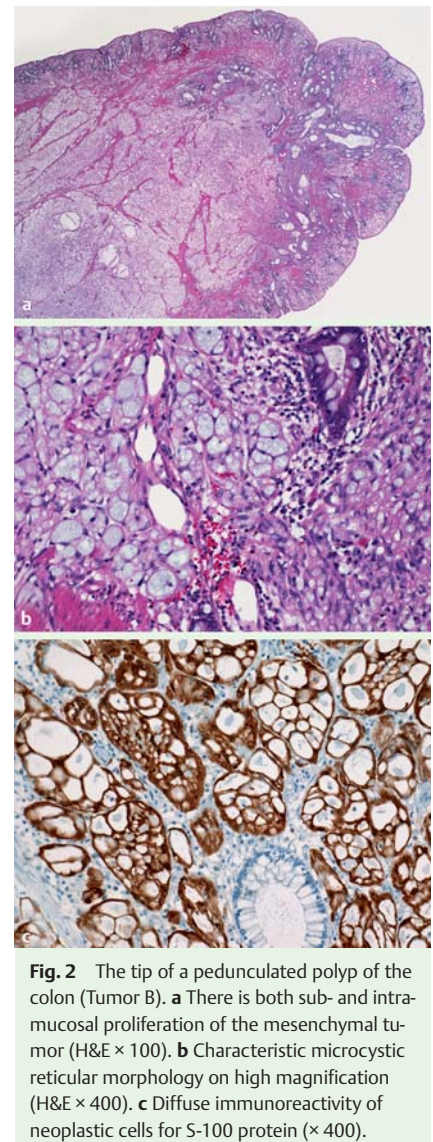


Fig. 2 The tip of a pedunculated polyp of the colon (Tumor B). **a** There is both sub- and intramucosal proliferation of the mesenchymal tumor (H&E $\times 100$). **b** Characteristic microcystic reticular morphology on high magnification (H&E $\times 400$). **c** Diffuse immunoreactivity of neoplastic cells for S-100 protein ($\times 400$).

Bibliography

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Corresponding author

C. Langner, MD

Institute of Pathology/Medical University of Graz
Auenbruggerplatz 25
A-8036 Graz
Austria
Fax: +43-316-3853432
cord.langner@medunigraz.at