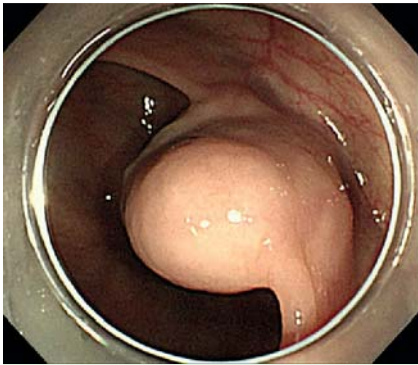
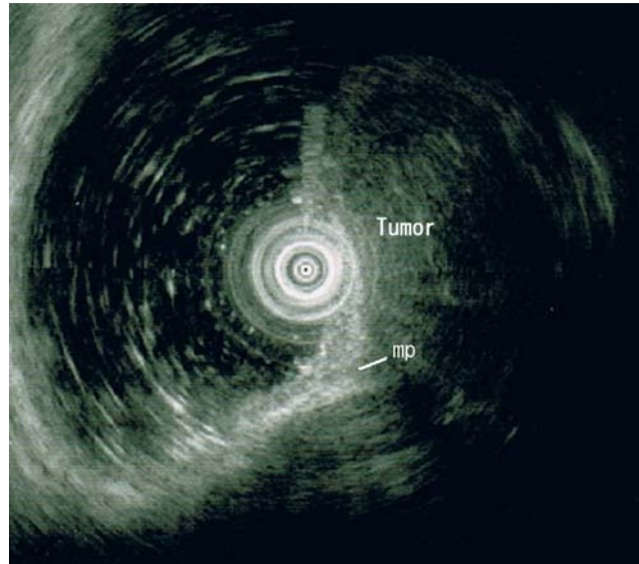


## Primary amelanotic malignant melanoma of the colon



**Fig. 1** Colonoscopic view of a 20-mm submucosal tumor in the cecum, thought to be a gastrointestinal stromal tumor.



**Fig. 2** Endoscopic ultrasonography showing a homogeneous, hypoechoic tumor derived from the muscularis propria (mp).

Malignant melanomas in the gastrointestinal tract are usually metastases from cutaneous melanomas [1], and primary melanomas in the esophagus or anorectal lesions rarely occur. Primary colonic malignant melanoma is extremely rare, with only eight cases previously reported [2]. Although melanomas usually exhibit macroscopic pigmentation, 30% are amelanotic [3]. Diagnosis of amelanotic melanoma of the gastrointestinal tract by endoscopic examination is difficult owing to its resemblance to gastrointestinal stromal tumor (GIST). We report the case of a patient with amelanotic melanoma of the cecum presenting as a submucosal tumor (SMT), detected by colonoscopy. To our knowledge, this is the first report of primary amelanotic melanoma of the colon. A 39-year-old woman was referred to our hospital for lower abdominal pain. Colonoscopy revealed an SMT (diameter 20 mm) in the cecum (Fig. 1). Endoscopic ultrasonography revealed a hypoechoic SMT derived from the muscularis propria, which was suspected to be a GIST (Fig. 2). The patient was offered two possible options: conservative follow-up and surgery. The patient gave informed consent for surgery and laparoscopic ileocaecal resection was carried out. The resected tumor measured 20 × 15 × 10 mm and its cut surface was milky white in color (Fig. 3). On histological examination,



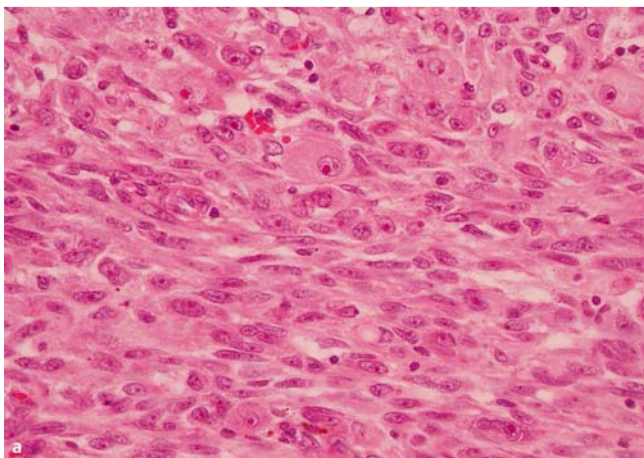
**Fig. 3** The resected tumor had a milky white cut surface and measured 20 × 15 × 10 mm.

the tumor cells were spindle shaped with abundant cytoplasm (Fig. 4a). In addition, these cells showed strong positive immunohistochemical staining for HMB-45 (Fig. 4b) but weak positive staining for both smooth muscle antigen and *c-kit*. These characteristics were consistent with malignant melanoma and the tumor was identified as an amelanotic melano-

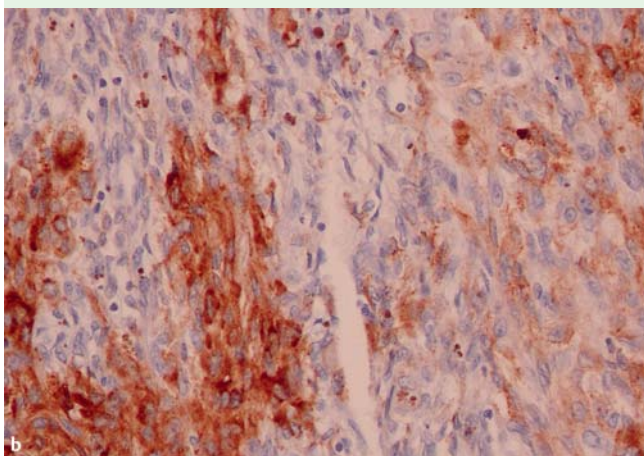
ma. Whole-body computed tomography and positron emission tomography did not reveal any other primary tumors, and thus a diagnosis of primary melanoma of the cecum was established.

**Competing interests:** None

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**Fig. 4** **a** Histological section showing spindle-shaped tumor cells with abundant cytoplasm (hematoxylin and eosin; magnification  $\times 400$ ). **b** Strongly positive immunohistochemical staining for HMB-45 (magnification  $\times 400$ ).



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