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IMAGES IN INFECTION

Sigmoid colon cancer due to *Schistosomiasis*

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A 76-year-old female patient with a history of bloody stools and abdominal discomfort underwent colonoscopy, showing a severe stenosing process. After surgical resection, histological analysis revealed an intermediate-grade adenocarcinoma (3.5 × 3 cm) pTNM: pT4a, G2, L0, pN0, V0, R0. Numerous foreign bodies (70 × 50 µm) were detected within the carcinoma and in the adjacent tissue, which were identified as *Schistosoma japonicum* eggs (Figs. 1, 2 and 3). Laboratory findings showed no eosinophilia and an IgE level within normal range. One out of three serological *Schistosomiasis* assays was moderately reactive. Consecutively, a tumor-specific therapy and an antiparasitic treatment with Praziquantel were initiated.

The patient grew up in Mindanao, Philippines, and emigrated to Germany in the 1970s for an employment as a nurse. In her childhood and adolescence, she had frequently been exposed to local freshwater. Neither diagnostics nor an anthelminthic treatment had ever been undertaken. Ever since the emigration, the patient lived and worked continually in Germany with only short visits to her country of birth.

The correlation between *S. japonicum* and colorectal cancer has long been discussed [1]. Data of a matched case–control study showed patients suffering from chronic *S. japonicum* infection to be three times more at risk of developing a colon malignancy [2].

Increasing mobility and migration can lead to an increased number of as-yet undiagnosed, latent infectious disease cases, also in patients who have been asymptomatically for

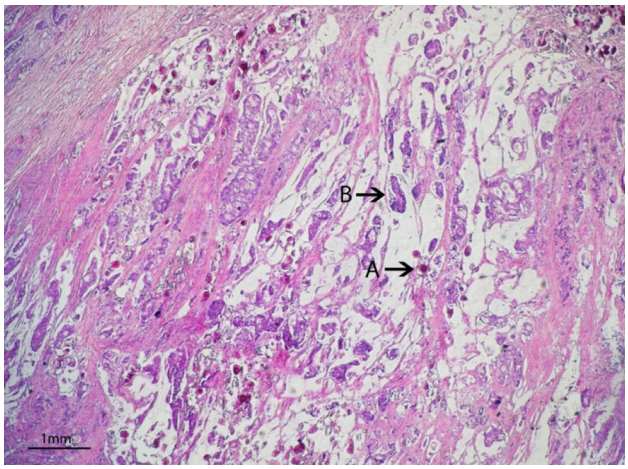

Fig. 1 Overview of intestinal type carcinoma with intermixed *S. japonicum* eggs (arrow A) within mucinous tumor component (arrow B), H&E stain × 20

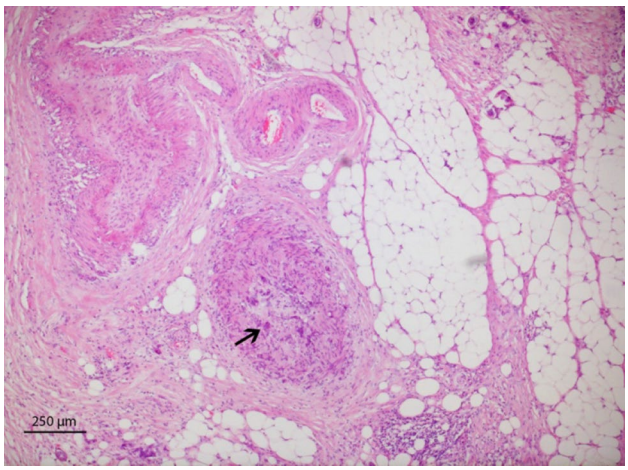

Fig. 2 Tumor invasion of smaller vein with luminar occlusion (arrow). H&E stain × 50

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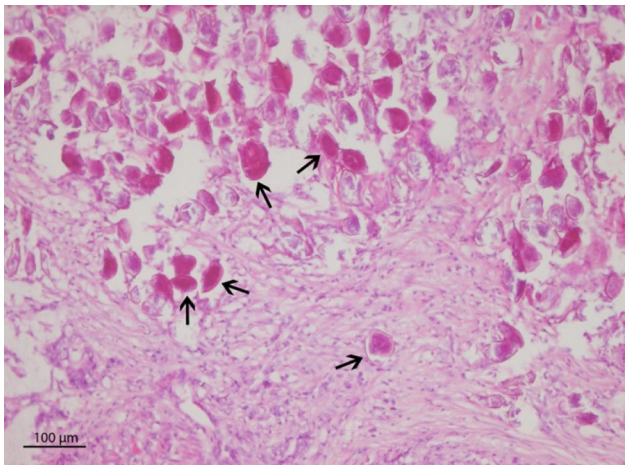

Fig. 3 *Schistosoma japonicum* eggs H&E stain × 100

decades, resulting in potentially severe secondary diseases. Awareness with an emphasis on the patient's previous history may prevent this disease development.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Informed consent The patient gave informed consent to the anonymized retrospective publication; no measures were undertaken beside the medical routine.

References

1. Salim OE, Hamid HK, Mekki SO, Suleiman SH, Ibrahim SZ. Colorectal cancer associated with *Schistosomiasis*: a possible causal relationship. World J Surg Oncol. 2010;8:68.
2. Qiu DC, Hubbard AE, Zhong B, Zhang Y, Spear RC. A matched, case-control study of the association between *Schistosoma japonicum* and liver and colon cancers, in rural China. Ann Trop Med Parasitol. 2005;99:47–52.