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Case report: signet ring cell carcinoma in a juvenile polyp

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Dear Editor,

Juvenile polyps are hamartomatous lesions, usually unique, which appear at an early age. They are usually located in the rectosigmoid junction and are not thought to imply a higher risk of colorectal cancer. Here we report a case of signet ring cell (SRC) carcinoma in this type of lesion.

Case report

A 54-year-old male underwent a colonoscopy after a positive fecal occult blood test (FOBT) performed during the colorectal cancer screening program. A 1-cm peduncultated (stalked) polyp was found in the sigmoid colon, with an eroded surface and an aberrant pit pattern (Kudo type IV) that was en-block resected. The histologic examination showed a high degree SRC carcinoma in the juvenile polyp that penetrated the lamina propia, preserving the resection margin with a tumor-margin distance of 4 mm, without lymphatic or venous penetration. The case was reported to the multidisciplinary committee and surgical treatment was decided upon after other approaches using gastroscopy and a thoracoabdominal computed tomography (CT) scan were discarded. A laparoscopic sigmoidectomy was performed, with no signs of residual tumor, neither in the surgical specimen nor in the seven resected lymph nodes.

Discussion

Signet ring cell carcinoma is a histologic subtype distinguished by the presence of more than 50% of tumor cells, with prominent intracytoplasmic mucin. It is most frequently located in the stomach and represents between 0.1 and 2.4% of primary colorectal cancer. It is an aggressive tumor that appears at a young age and is associated with hereditary non-polyposis colorectal cancer. Its pathogenesis is still unknown and some reported cases of the adenoma-adenocarcinoma sequence and other hypothesis point to an origin of the enterochromaffin cells.

Although isolated juvenile polyps in the colon are considered as benign and do not require follow-up, there are some reported cases that progress to colorectal cancer, as in the case reported here.

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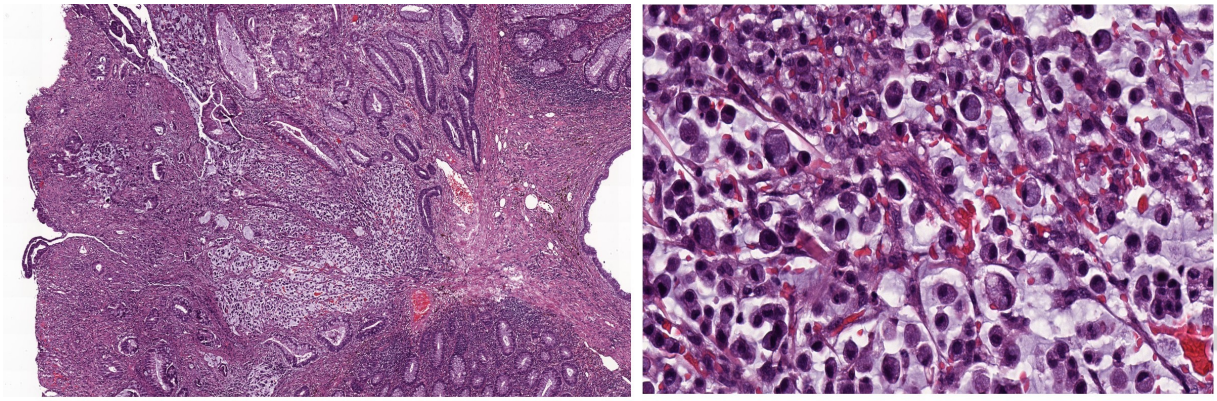

Fig. 1. A. Pathology, hematoxilin-eosin 40x: polypoid lesion with dilated crypts full of mucin and neutrophils. An area with dysplastic glands and single cells surrounded by mucin can be appreciated. B. Pathology, hematoxilin-eosin 400x: signet-ring cells, which have an excentric nucleus and prominent intracytoplasmic mucin.