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Juvenile polyp presenting with rectal bleeding in a 2-year-old girl

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Juvenile polyps (JP) are rare but important causes of acute gastrointestinal symptoms in children.

Juvenile polyps may present with hematochezia, prolapse of the polyp from the anus, abdominal pain due to intussusception or may even be asymptomatic. All such polyps should be removed by colonoscopy or transanal resection [1].

A 2-year-old girl was referred to our department due to lower gastrointestinal bleeding. Patient family history was negative. Pediatric diagnostic workout was negative and endoscopy was decided. Colonoscopy revealed a 2-cm penduculated polyp at the rectum while the rest of the large bowel and the terminal ileum were normal. Endoscopic polypectomy was performed at the operation room under general anesthesia (E.V.T.). The child recovered completely and was discharged with no recurrent episode of rectal bleeding at follow up. Histology of the resected polyp was compatible with juvenile polyp with no signs of dysplasia. In detail, the polyp had an epithelial and a connective tissue element. Smooth muscle fibers were found in the stroma. The epithelial lining of the tubules consisted of cells that showed little sign of increased nuclear activity such as hyperchromatism and mitosis, although there was some diminution in the number of goblet cells. The tubules were dilated by retained mucus leading to flattening of the epithelial lining. The epithelial tubules were widely separated by a fine areolar network of reticulin fibres and connective tissue cells containing a sprinkling of lymphocytes and plasma cells.

Rectal polyps in children are juvenile in their majority and are mostly located at the rectum. In a large review series of 563 children aged from 2 months to 17 years the highest incidence of polyps was between ages 2 and 10 years (85.1%). Rectal bleeding was the presenting symptom in 78.5% cases. The polyps were solitary in 94% of cases. The majority of polyps (86.3%) were juvenile and 86.7% located in the rectosigmoid area. Three percent of cases had a positive family history. One case of Turcot syndrome was also identified [2]. Polyps must be removed even when asymptomatic because of their probable neoplastic potential [3].

Though most JP are located in the left colon, a complete colonoscopy should be the initial procedure because 37% revealed proximal polyps, 32% of polyps were located proximal to splenic flexure, persistence of symptoms from missed proximal polyp(s) necessitates a repeat study with attendant risks, and there is a possibility of malignant transformation in an unidentified JP.

A retrospective chart review on 77 children and adolescents with colorectal polyps seen over a 15-year period (1980-1994) recurrence was observed in five of 63 patients (7.9%) with juvenile polyps, in one patient with infantile polyposis, and in one with solitary adenomatous polyp. Authors suggested that a full colonoscopic evaluation should be performed in all patients with suspected polyps if feasible, for multiple polyps occurred in 35% of children without polyposis syndromes in this series. Parents of patients with more than three polyps and/or a family history of juvenile polyposis should be warned regarding the possibility of an increased risk of malignancy in future if polyps continue to recur [4].

Histopathologic examination of any removed polyp is important to detect any dysplastic or adenomatous element with malignant potential and to make a suitable follow-up schedule when appropriate [5].

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