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Colonoscopic polypectomy in a preschool-age child

Carlos A. Ricotti, MD* and Bernard M. Schuman, MD*

Colonoscopy is a procedure used worldwide in the adult population. Here we report the case of a colonoscopic polypectomy in a preschool-age child, and we show once more that the procedure is a safe one to perform in children if the appropriate precautions are taken.

COLONOSCOPY is widely used for diagnosis and treatment of diseases of the colon. Its safety and relative simplicity in experienced hands make it the first choice for the removal of colonic polyps in the adult population.^{1,2} There are few reports in the literature of colonoscopy in children, primarily because of the rarity of its indication.^{3,4} We report the case of a 4-year-old child who underwent colonoscopic polypectomy of a juvenile polyp without complications.

Case Report

A 4-year-old child was admitted to the hospital because of a large bowel obstruction and hematochezia. This episode subsided with conservative management. A barium enema was performed and a large polyp was found in the splenic flexure of the colon (Figure 1). This was thought to be the source of bleeding, and elective colonoscopy with possible polypectomy was arranged. The bowel preparation consisted of two days of clear liquid diet with cleansing enemas the night before and on the morning of the procedure. The procedure was performed in the operating room after the patient received general anesthesia. The medium bundle, adult-size colonoscope (CF-MB, Olympus Corp) was introduced in the colon. The abdominal wall was completely relaxed, and the assistant could feel and manipulate the colonoscope avoiding excessive bowing of the sigmoid loop. A 2.5 cm polyp was identified in the splenic flexure during the first passage of the instrument, and it was removed with the appropriate technique (Figure 2). The patient tolerated the procedure well without signs of bleeding or abdominal distention. He was discharged the next day. The histology of the lesion was consistent with a juvenile polyp.

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Discussion

Juvenile polyps are benign histologic lesions which do not undergo transformation into malignancy. They can cause bleeding and bowel intussusception, as seen in our patient; under these circumstances, surgical removal is indicated. In selected cases, colonoscopic polypectomy should be the first choice for treatment if an experienced endoscopic team is available.

General anesthesia is not used in the adult population since the patient's awareness of pain is helpful in avoiding bowel damage. However, general anesthesia has been used in children by several endoscopists without complications.^{5,1} In the older children, who are usually more cooperative, intravenous sedation seems to be appropriate.⁶ Lacerations of the colonic mucosa have been reported in children following colonoscopy,

but this occurred when several passages of the instrument were required.⁷ Also, excessive air insufflation during the insertion of the colonoscope should be avoided. A combination of factors is responsible for the serosal and seromuscular tears of the colon during colonoscopy: 1) volume of air, 2) rate of entrance, 3) site of the insufflated area, and 4) localized mechanical stretching and bowing of the antimesenteric wall of the sigmoid loop during the insertion of the colonoscope.⁸ General anesthesia allows external manual manipulation of the instrument through the abdominal wall, which is completely relaxed, thus avoiding excessive bowing of the sigmoid loop.⁹

We prefer to use the adult-size colonoscope, since it allows better visualization and manipulation during the procedure and avoids the excessive flexibility of the pediatric instruments.

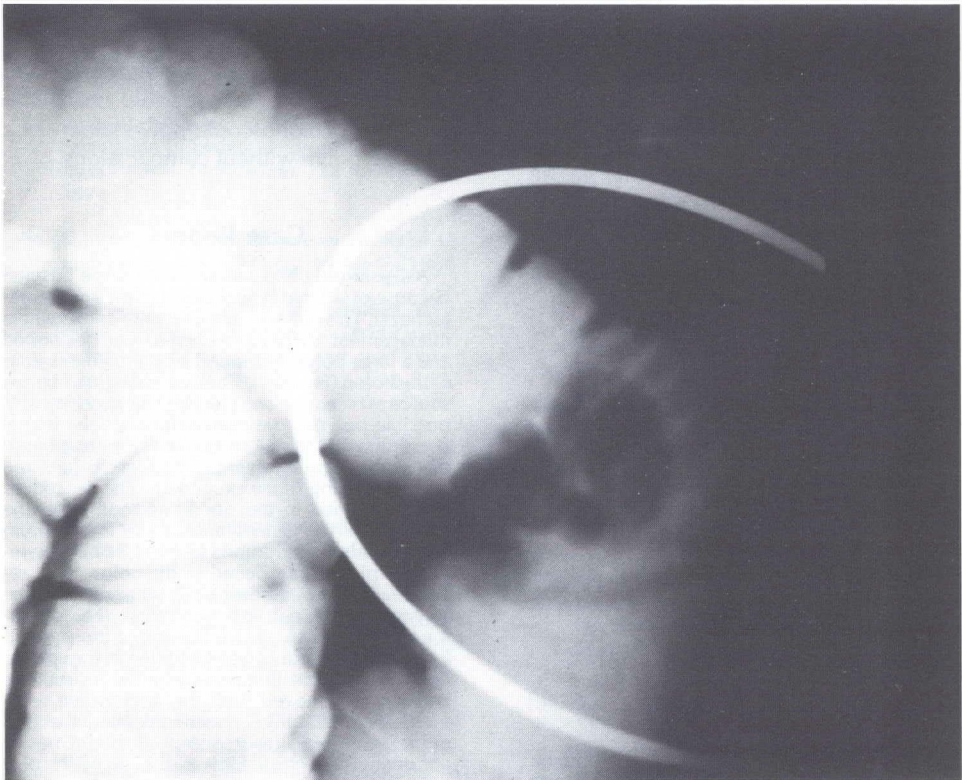


Figure 1

Colonoscopic polypectomy in a preschool-age child

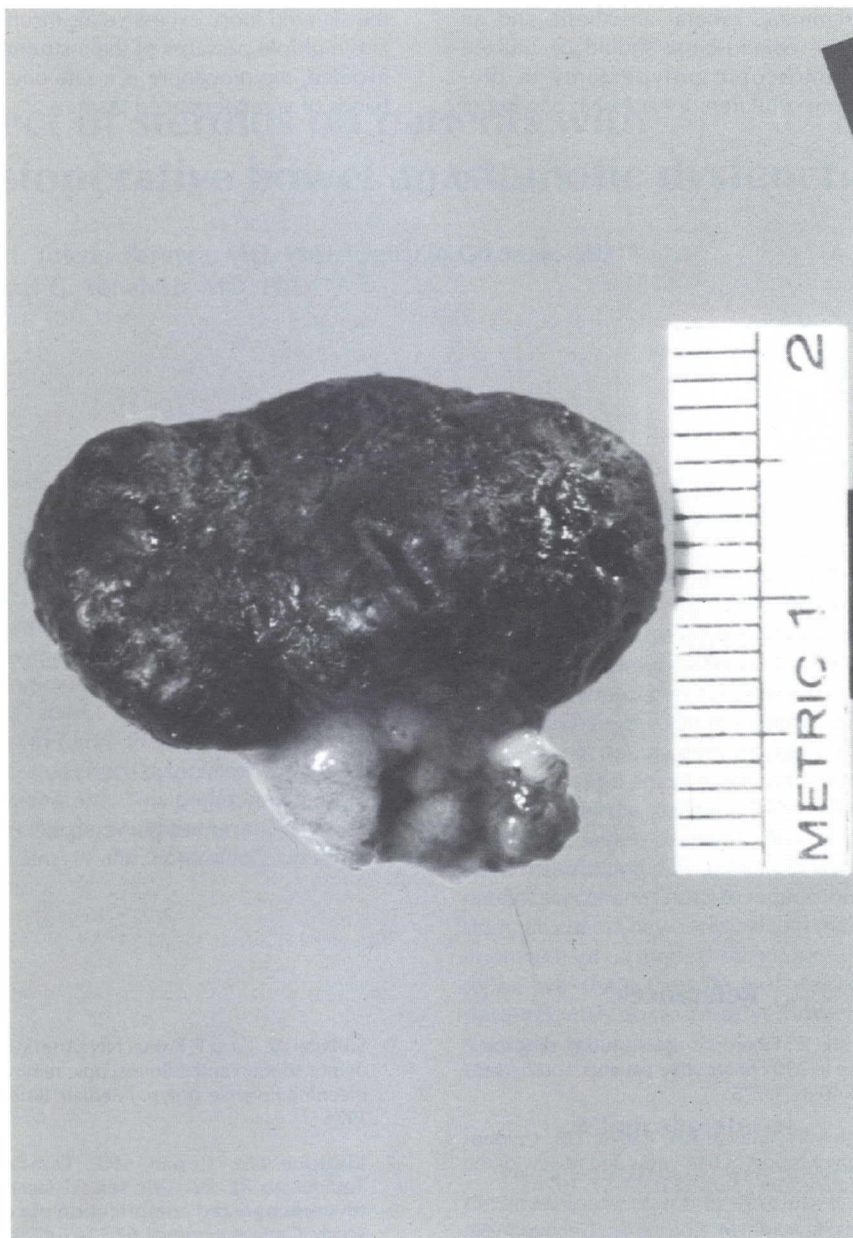


Figure 2

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In summary, general anesthesia and an adult-size colonoscope should be utilized for colonoscopic polypectomy in pre-school-age children. If excessive bowing of

the sigmoid loop, excessive air insufflation, and multiple passages of the instrument are avoided, the procedure is a safe one in the hands of an experienced team.

References

1. Christie JP: Fiberoptic colonoscopy, diagnostic value in 250 consecutive patients. *South Med J* **69**:540-44, 1976
2. Sivak MV, Sullivan BH, Rankin GB: Colonoscopy, a report of 644 cases and review of the literature. *Am J Surg* **123**:351-57, 1974
3. Gans SL, Ament M, Christie DL, Liebman WM: Pediatric endoscopy with flexible fiberscopes. *J Pediatr Surg* **10**:375-80, 1975
4. Cremer M, Peeters JP, Emonts P, Rodesch P, Cadranet S: Fiberendoscopy of the gastrointestinal tract in children. *Endoscopy* **6**:186-89, 1974
5. Filoche S, Delmotte JS: La polypectomie per-colonoscopique. *Lille Med* **20**:152-57, 1975
6. Stillman AE, Long P, Komar NN: Arteriographic demonstration and colonoscopic removal of a bleeding juvenile polyp. *J Pediatr* **80**:445-46, 1976
7. Livstone EM, Cohen MG, Troncale FJ, Touloukian RJ: Diastatic serosal lacerations: an unrecognized complication of colonoscopy. *Gastroenterology* **67**:1245-47, 1974
8. Livstone EM, Kersten MD: Serosal tears following colonoscopy. *Arch Surg* **111**:88, 1976
9. Hansen LK: Colonoscopy, an analysis of 120 cases with special regards to the technique. *Endoscopy* **5**:77-81, 1973