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Research Article

FREQUENCY OF POLYP IN CHILDREN PRESENTED WITH BLEEDING PER RECTUM

Syed Rafi Ud din¹, Meena Hayat¹, Zainab Manan¹, Shafique-ur-Rehman², Naila Batool¹,
Muhammad Kamran¹

¹ Department of Surgery, Ayub Teaching Hospital

² Department of Surgery, Khyber Teaching Hospital

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Abstract:

Caring for children with gastrointestinal bleeding requires a thorough understanding of the possible etiology and symptoms. Gastrointestinal bleeding is usually classified based on the anatomical relationship between the suspected bleeding site and the Treitz ligament. Bleeding around the Treitz ligament is considered upper GI bleeding and bleeding around the Treitz ligament is considered lower GI bleeding. Pediatric rectal bleeding (RP) is common in operating theaters. There are many causes of PR bleeding such as polyps, hemorrhoids, anal fissures, and angiodysplasia. Among all causes, the rectal polyp is the most common cause of PR bleeding. About 1-2% of children have polyps in the large intestine.

Purpose: *This study was conducted to determine the prevalence of polyps in children who were examined under anesthesia for PR bleeding at the Surgical Unit "B" of Abbottabad Ayub University Hospital. Study design: cross-sectional (descriptive) study.*

Place and Duration: *The study was conducted in September 2017 in the Ayub Abbottabad Training Hospital general surgery ward. Until February 2018.*

Materials and methods: *The study population included all children participating in the operational OPD. Spontaneous rectal bleeding in both sexes lasting less than 6 months. The researcher himself collected all the data and analyzed them in SPSS 17.*

Results: *The mean age of the patients was 5.056 ± 2.2611 from 6 months to 10 years, and the mean duration of rectal bleeding was 3.50 ± 1.581 from 1 to 6 years. months. While polyps and polypectomy were found in 79 (57.2%) patients, 59 (42.8%) patients had no polyps detected during the study.*

Conclusion: *The study concluded that the etiology, diagnosis, clinical picture, and management of these intestinal polyps depend on the type of polyp or polyp syndrome. In children, the first symptom may be changes in bowel habits, abdominal pain, rectal bleeding, rectal prolapse, and even intussusception.*

Keywords *Polypectomy, examination under anesthesia, children with rectal bleeding*

Corresponding author:**Rafi-ud-din,**

Email: rafikmc33@gmail.com

Contact no: 0334-9206658

QR code



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INTRODUCTION:

Gastrointestinal bleeding accounts for at least 3 in 1,000 visits to the pediatric emergency room. Caring for children with gastrointestinal bleeding requires a thorough understanding of the possible etiology and symptoms. Gastrointestinal bleeding is usually classified based on the anatomical relationship between the suspected bleeding site and the Treitz ligament. Bleeding around the Treitz ligament is considered upper GI bleeding and bleeding around the Treitz ligament is considered lower GI bleeding.

Pediatric rectal bleeding (RP) is common in operating theaters. There are many causes of PR bleeding such as polyps, hemorrhoids, anal fissures, and angiodysplasia. Among all causes, the rectal polyp is the most common cause of PR bleeding. About 1-2% of children have polyps in the large intestine.

A polyp is an abnormal tissue growth that extends from the mucosa, with or without a root, cancerous or non-cancerous. Tumors are generally benign, but some may be precancerous and / or malignant^{3,4}. Most intestinal polyps in children are sporadic and not associated with malignant tumors.

Children with polyps often have PR bleeding or pain, abdominal pain, and fatigue. Changes in bowel rhythm, including constipation and diarrhea, can occur.⁵ Colon polyps are generally classified as hyperplastic (potentially benign), cancerous (adenomatous and malignant), hamartomatic, and inflammatory. Adenomas are classified as tubular, tubulo-alveolar, and villi with a 5%, 20%, and 40% cancer risk, respectively. Hamartomatic polyps usually occur in syndromes such as Peutz-Jegher syndrome or juvenile polyposis syndrome. Peutz-Jegher usually presents with intussusception around 9 years. The polyps themselves have a low malignancy potential, but due to the possible coexistence of adenomas, the probability of colon malignancy is 15%. Juvenile polyps usually appear at age twenty, but can also occur in adults, and are characterized by more than five polyps in the colon or rectum, or multiple adolescent polyps in the digestive tract, or any number of juvenile polyps. People with juvenile polyposis in the family. People with juvenile polyposis are at high risk of colon cancer.

An isolated juvenile polyp is the most common type of polyp in children⁷. demonstrated a protective relationship between the consumption of brown rice, legumes and nuts and the formation of lower polyps in the colon

Examination under general anesthesia (general anesthesia) AUS is a very common procedure performed in general OT surgery for rectal bleeding in children.¹¹ In most cases, the pathology is a polyp and is performed if found. polypectomy. In addition to polyps, there are other pathologies associated with PR¹² bleeding during AUS and these are specifically treated.

A recent review of the literature on colon polyps shows that the overall estimated incidence of lower gastrointestinal bleeding during colonoscopy is 6.1% and 12.0%. Non-Caucasian breeds (for example, Black and Hispanic races) have a higher risk of developing colon polyps during childhood.

The aim of our study is to determine the frequency of polypectomy in children living in the United States.

OBJECTIVES

Determination of the frequency of polypectomy in children examined for hemorrhagic RP under anesthesia in operating rooms of Abbottabad Ayub Training Hospital.

ACTION EXPLANATION:

- 1. POLYP:** This is an abnormal tissue growth that occurs in the mucosa. In this case, it is felt during digital rectal examination (DRE) and proctoscopy under general anesthesia.
- 2. POLYPECTOMY:** Surgical removal of the polyp.
- 3. BLEEDING:** The amount of blood visible to the naked eye is measured in ml.
- 4. United States:** examination under general anesthesia.

TOOLS AND METHODS:

Working environment: The study was conducted in the surgical ward of Ayub Training Hospital; Abbottabad. It is a tertiary hospital with three general surgery departments with over 150 beds. Numerous scheduled and emergency operations are carried out daily.

Study design: cross-sectional (descriptive) study

Research period: The study was conducted from September 2017 to February 2018.

Sample size: 138

Sample size is computed using WHO software to calculate sample size in health studies.

Sampling technique: Sequential sampling over probability

SAMPLE SELECTION

Admission Criteria:

- From 6 months to 10 years.

- Both women and men.
- Children with spontaneous bleeding.
- Bleeding in the rectum for up to 6 months.

Exclusion criteria:

- Polish children with traumatic bleeding.
- Children with coagulopathy.
- Patients with comorbidities or deaths.
- Children with known mental illnesses.

DATA COLLECTION PROCEDURE: The study was first approved by the hospital's ethics committee, and data was collected on a form (from individuals selected on the basis of inclusion criteria and sampling techniques) with fully informed consent. patient assistant, understandable and voluntary by researchers in the EUA procedure

DATA ANALYSIS: Data analyzed using SPSS version 17.0. Quantitative variables such as age and rectal bleeding time are defined as the mean of 6 standard deviations. Categorical variables such as gender, family history, and outcome variables, namely polypectomies, have been defined as frequency and percentage. The outcome variable was classified by age, gender, and family history. The Chi-square test at a significance level of 5% was used to find a significant difference as a function of the score variable with age, gender, and family history. A p value of <0.05 was considered significant.

RESULTS:

The results showed that between the ages of 6 months and 10 years, 85 of 138 patients were male and 53 females, and the mean rectal bleeding time between months 1 and 6 was 3.50 ± 1581 . While 3% of patients, who underwent AUS had a family history of polyps, 66.7% did not. Although 79 of 138 US scans (57.2%) had polyps and polypectomy, 59 (42.8%) had no polyps. Figure 1 In the age group 77 (55.8%) patients were less than 5 years of age, and 61 (44.2%) were 5 years of age or older, Figure 2.

According to the polypectomies performed, 47 (55.3%) out of 79 polypectomies were men and 32 (60.4%) women. This finding was not statistically significant at $p = 0.557$. While 32 (69.6%) polypectomies had a family history of polyposis, 47 (51.1%) had no family history, and surgery was performed by detecting polyps. This finding was statistically significant at $p = 0.039$ as shown in Table 1.

The frequency distribution of polyps detected by polypectomy was shown in 79 (100.0%) patients, while no polyp was found in all patients during polypectomy. This result was statistically significant at $p = 0.000$ among 138 patients as shown in Table 2. In the polypectomy group, 40 (51.9%) were under 5 years of age and 39 (63.9%) were in the age group. Up to 5 years and 10 years. This finding is not statistically significant since $p = 0.158$ in Table 3.

Table 1: Frequency distribution of family history with respect to polypectomies done:

Family history	Polypectomy done		Total
	Yes	No	
Yes	32 69.6%	14 30.4%	46 100.0%
No	47 51.1%	45 48.9%	92 100.0%
Total	79 57.2%	59 42.8%	138 100.0%
Chi-square	4.278		
P-value	0.039		

Table 2: Frequency distribution of polyp found with respect to polypectomies done:

Polyp Found	Polypectomy done		Total
	Yes	No	
Yes	79 100.0%	0 0.0%	79 100.0%
No	0 0.0%	59 100.0%	59 100.0%
Total	79 57.2%	59 42.8%	138 100.0%
Chi-square	138.000		
P-value	0.000		

Table 3: Frequency distribution of age group with respect to polypectomies done:

age group	Polypectomy done		Total
	Yes	No	
Below 5 years	40 51.9%	37 48.1%	77 100.0%
5 & Above up to 10 years	39 63.9%	22 36.1%	61 100.0%
Total	79 57.2%	59 42.8%	138 100.0%
Chi-square	1.998		
P-value	0.158		

Fig 1

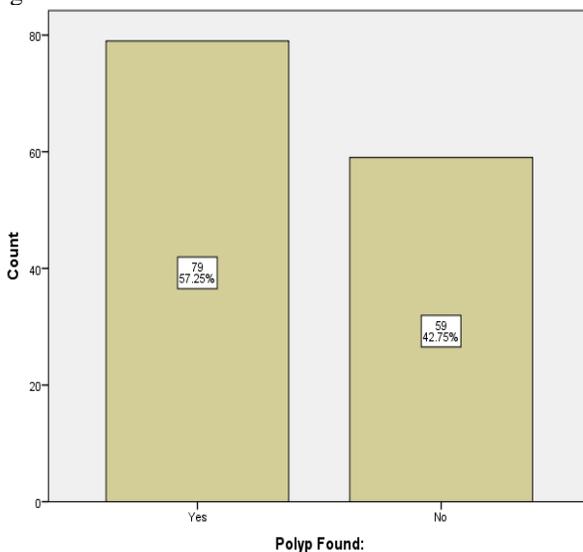
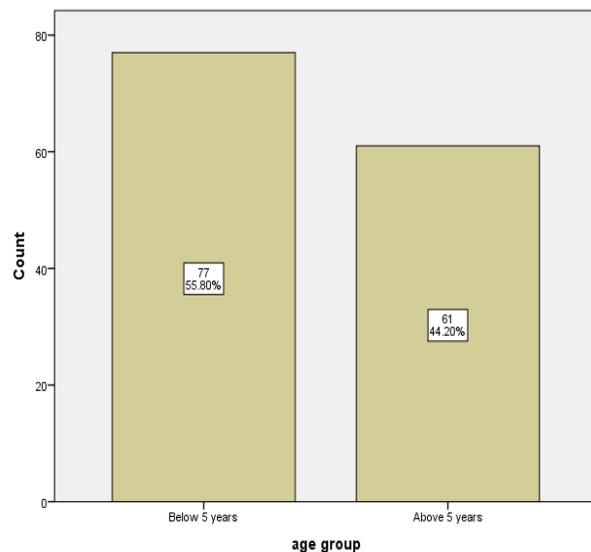


Fig 2

**DISCUSSION:**

Bleeding in the colon is one of the many causes of bleeding in children. Colon polyps include bleeding, spotting, and serious life-threatening conditions that require resuscitation¹³. Our experience shows in this report. Peace of mind is essential for both parents and the baby. Endoscopic polypectomy, characterized by low morbidity and mortality, has revolutionized the management of polyps and is now considered a

treatment method for this condition¹⁴. open or laparoscopic colectomy. ¹⁵ The advantage of colonoscopy over open colectomy is that it allows direct visualization without a surgical incision and is therefore less traumatic to the patient. However, colonoscopy may not be affordable for low-income patients and may not be cost-effective. Complications these patients may have with ulcerated polyps include life-threatening bleeding, perforation, and peritonitis.

After endoscopic removal of polyps, patients should have longer observation and repeat colonoscopy in the future, due to the possibility of recurrence and subsequent neoplasm¹⁶.

Lee BG et al. The results of the work done by. This is much closer to our study, which included 61.4% of anal polyps, 17 of which were detected in 2012, and the results are much closer to our polyp removal study of 77 patients (55.8%) 5 years, 61 (44% 2) 5 years and over 10 years.

Similarly, our study had 79 (100%) polyps, and although polypectomy was used in all patients to treat them, the rest of the patients did not have polyps. This result was statistically significant at the level of $p = 0.000$, and the distribution of frequency in the age group according to polypectomies performed was 40 (51.9%) in the group under 5 years old, 39 (63.9%) 5 years and more. Like the Lee BG study, it shows the dominant cause in children under 5 to 10 years of age.

In our study, the distribution of sex after polypectomy in 47 (55.3%) men and 32 (60.4%) women, more often in children. This result was not statistically significant at $p = 0.557$, and according to the polypectomies performed, 32 (69.6%) had a family history, and 47 (51.1%) had no family history in the distribution of the frequency of family interviews. It was found that people with polyps had undergone polypectomy.

Taken together, this report further highlights the value of polypectomy in assessing children with rectal bleeding.

CONCLUSION:

The study shows that the etiology, diagnosis, clinical picture and management of these intestinal polyps depend on the type of polyp or complex of polyps. In addition to a detailed family history and a detailed medical history, the main diagnostic tools are physical examination, contrast test and endoscopic examination. Endoscopy allows the tissue to be removed for diagnosis using excisional biopsy. Caring for children with malignant polyposis includes the sick child and the family. Genetic counseling, genetic testing, and screening recommendations are available for first degree relatives at risk of the syndrome. Some children have symptoms of a life-threatening polyp such as a bowel obstruction or perforation. These patients require appropriate resuscitation and urgent surgical treatment.

REFERENCES:

1. Dean KJ. Gastrointestinal bleeding. In :Mattei P, ed. *Fundamental of pediatrics surgery*. New York: Springer. 2010; P. 865-70
2. Durakbasa CU, Caglar M, Fettahogla S, Zemheri IE, Mutus HM. A clinical experience on pediatric colorectal polyps. *Göztepe Tıp Dergisi* 2012; 27(1):1-5.
3. Deyhle P. Results of endoscopic polypectomy in the gastrointestinal tract. *Endoscopy* 1980; (Suppl): 35-46.
4. Winawer S, Fletcher R, Rex D, Bond J, Burt R, Ferrucci J et al. Colorectal cancer screening and surveillance: Clinical guidelines and rationale—Update based on new evidence". *Gastroenterology*. 2003;124 (2): 544-60.
5. Nicki R. Colledge, Brian R, Stuart WH. Ralston, editors. *Davidson's principles and practice of medicine*. illustrated by Robert Britton (21st ed.). Edinburgh: Churchill Livingstone/Elsevier. 2010; ISBN 978-0-7020-3084-0.
6. Moreno-Egea A, Paredes P, Perello J, Campillo-Soto A, Baena E, Muñoz J, et al. Vascular injury by tacks during total extra-peritoneal endoscopic inguinal hernioplasty. *Surg Laparosc Endosc* 2010;20 (3):129-31.
7. Katsanos KH, Rogalidou M, Siamopoulou A, Tsianosa EV. Juvenile polyp presenting with rectal bleeding in a 2-year-old girl. *Annals of Gastroenterol* 2011;24(1):8-67.
8. Thakkar K, Fishman DS, Gilger MA. Colorectal polyps in childhood. *Curr Opin Pediatr* 2012;24(5):632-7.
9. Worthey EA, Mayer AN, Syverson GD, Helbling D, Bonacci BB. Making a definitive diagnosis: Successful clinical application of whole exome sequencing in a child with intractable inflammatory bowel disease. *Genetics IN Medicine* 2011;13(3):255-62
10. O'Reilly AE, Burke, P J, O'Connell, Ronan P. A meta-analysis of surgical morbidity and recurrence after laparoscopic and open repair of primary unilateral inguinal hernia. *Ann Surg Treat Res* 2012; 255(5) :846-53.
11. Hua MC, Lai MW, Kuo ML, Yao TC, Huang JL, Chen SM. Decreased Interleukin-10 secretion by peripheral blood mononuclear cells in children with irritable bowel syndrome. *J Pediatr Gastroenterol Nutr* 2011;52(4):376-81.
12. Levine A, Koletzko S, Turner D, Escher, Johanna C, Cucchiara S et al. ESPGHAN Revised Porto Criteria for the diagnosis of inflammatory bowel

- disease in children and adolescents. *J Pediatr Gastroenterol Nutr* 2014;58(6):795-806.
13. Haghghat M, Geramizadeh B. The Clinical presentation and outcome of infants with nodular lymphoid hyperplasia: Experience with 34 cases from Southern Iran. *Iran J Med Sci* 2003;28:176-9.
 14. Hauroto M, Lozano R, Beteta O, Hauman C, Salazar G. Paediatric colonoscopic polypectomy. *Rev Gastroenterol Peru* 1994;14:204-8.
 15. Cruz RA, Ragupathi M, Pedraza R, Pickron TB, Le AT, Haas EM. Minimally invasive approaches for management of "Difficult" Colonic polyps. *Diagn Ther Endosc* 2011;2011:682793.
 16. Robertson DJ. Colonoscopy for colorectal cancer prevention. "Is it fulfilling the promise?" *Gastrointest Endosc* 2010;71:118-20.
 17. Lee BG, Shin SH, Lee YA, Wi JO, Lee YJ, Park JH. Juvenile Polyp and Colonoscopic Polypectomy in Childhood. *Pediatr Gastroenterol Hepatol Nutr.* 2012; 15(4): 250–55.