



## ORIGINAL RESEARCH PAPER

## Pathology

### STUDY OF BENIGN NEOPLASMS OF COLORECTUM: HISTOPATHOLOGY

**KEY WORDS:** Adenoma, hyperplastic polyp, juvenile polyp, leiomyoma.

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#### ABSTRACT

**Introduction:** Though colorectum is a common site for malignancies, benign tumors do occur. This work was done to study the histomorphological spectrum of benign neoplasms of colorectum and their approximate burden in the area concerned.

**Methods:** Study is carried out in the department of pathology, Sardar Patel Medical College for a period of 28 months.

**Results:** Majority of benign neoplasms were reported in first decade of life. Adenomas were the commonest (46.1%) among benign lesions followed by 4 (30.8%) cases of juvenile polyp, two cases of hyperplastic polyp and single case of leiomyoma also reported.

**Conclusion:** Rectum was the most common site for benign neoplasms in this study. Histopathological examination is necessary for proper diagnosis and management.

#### INTRODUCTION

Neoplastic lesions of colorectum play significant role in morbidity and mortality worldwide. Though malignant neoplasms seem more contextual in this regard<sup>1</sup>, we can not underestimate the potential of benign tumors causing direct trouble and having tendency to transform into malignant ones specially if related to some syndromes or germline mutations.

Adenomas are common in Westernized cultures and uncommon in developing countries; autopsy studies show a prevalence as high as 60% in the former and as low as 5.5% in the latter. Most adenomas smaller than 1 cm tend to show an even distribution throughout the large intestine, whereas those larger than 1 cm tend to be localized in the distal colon.

If 75% to 80% of the lesion is tubular or villous, then it is classified as tubular adenoma or villous adenoma, respectively, with all the lesions that fall in between being classified as tubulovillous adenomas.<sup>2</sup>

Hyperplastic polyps have a predilection for the sigmoid colon and rectum.<sup>3</sup>

#### AIMS AND OBJECTIVES

1. To study the histopathology of benign neoplasms of colorectum.
2. To study these lesions in reference to site, frequency, age and sex distribution.

#### MATERIAL AND METHODS

This study was carried out in the department of pathology Sardar Patel Medical College, Bikaner. Endoscopically and surgically resected biopsies received during July 2014 to October 2016 and those cases diagnosed as benign neoplasms of colorectum were included in study. Clinical and gross details and histopathological findings were analysed.

#### OBSERVATION AND RESULT

**TABLE 1. Age and gender distribution of benign tumors of colorectum.**

Age	Adenoma		Juvenile polyp		Hyperplastic polyp		Leiomyoma		Total
	M	F	M	F	M	F	M	F	
0-10	2		3	1	1				7
11-20	1				-				1
21-30					1				1
31-40									-

41-50		1					1		2
51-60									-
61-70		1							1
71-80									-
81-90		1							1
Total	3	3	3	1	2	-	1	-	13

Adenoma showed wide age distribution (4 to 84 years) with equal cases of male and female.

Juvenile polyp was found in first decade of life with male predominance.

**TABLE 2. SITE WISE HISTOPATHOLOGICAL DIAGNOSIS**

Tumor		Site	Number		Percentage
Adenoma	Tubular	Rectum	5	6	46.1
	Tubulovillous	Rectum	1		
Juvenile polyp	Rectum	4	30.8		
Hyperplastic polyp	Rectum	2	15.4		
Spindle cell mesenchymal tumor (leiomyoma)	Rectum	1	7.7		
Total	-	13	100		

In our study rectum was the most common site for benign tumors of colorectum (table.2)

Adenoma constituted highest 6(46.1%) cases out of all benign tumors, followed by 4 (30.8%) cases of juvenile polyp.

Two cases of hyperplastic polyp and single case of leiomyoma also reported.

#### DISCUSSION

Out of 81 neoplastic lesions of colorectum, 68 were malignancies<sup>4</sup> and 13 were benign neoplasms.

**Table3. comparison of benign tumors of colorectum.**

Study	Adenoma			Hyperplastic polyp	Juvenile polyp	Serrated adenoma	Leiomyoma
Tadashi et al <sup>5</sup>	T	182	248	54	6	24	-
	T.V.	42					
	V	24					

c. bariol et al <sup>6</sup>	170	72	-	9	-		
Gurung p et al <sup>7</sup>	T	12	16	4	15	-	-
	T.V.	1					
	V	3					
Present study	T	5	6	2	4	-	1
	T.V.	1					
	V	-					

Among benign tumors, adenoma was most common in our study that is consistent with previous studies (table.3)

Out of 6 adenomas 3 were in male and three were in female showing 1:1 male to female ratio. (table.1)

In the study done by Gurung P et al<sup>7</sup>, adenomatous polyps (adenoma) were more common in males 15(94%) than in females 1 (6%).

While in study done by Rahat et al<sup>8</sup>, they found it to be more common in females with male to female ratio of 1:1.2.

Disparity in gender distribution may be because of differences in study size and in geographical conditions.

Tubular adenoma was the most common subtype 5 (83.3%) in our study that is in accordance with previous studies.<sup>7,8,9</sup>

In this study all cases of juvenile polyps are reported in first decade of life, rectum being the site in all cases, 3 cases were from male and 1 was from female. These findings are consistent with what is recorded in literature about juvenile polyp.

Juvenile polyp usually occurs in children under ten years of age.<sup>10</sup> The incidence in boys (men) is higher<sup>11</sup> than in girls (women). It is the most frequent colorectal tumor in children. Nearly 80% occur in the rectum but they may be scattered throughout the colon<sup>12,13</sup>.

Two cases of hyperplastic polyps were reported, these are mostly considered as non-neoplastic one but included in our study because they are part of WHO classification of tumors of intestine. Leiomyoma of intestine is a rare tumor. We found a case of it in rectum of 50 year male.

CONCLUSION

Rectum was the commonest site affected by benign neoplasia than parts of rest of colon. In general younger age group people get affected. Histopathological examination is essential if proper diagnosis and management is intended.

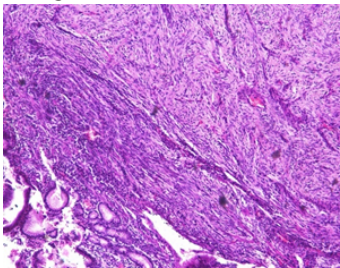


Figure 1: Leiomyoma rectum, H&E, 10x

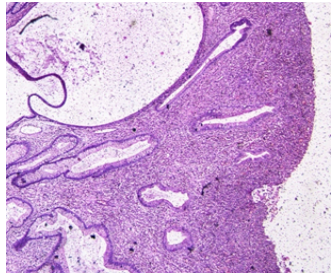


Figure 2: Juvenile polyp, H&E, 4x.

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