



ANALYSIS OF COLONIC BIOPSIES IN A TERTIARY CARE CENTRE

Pathology

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ABSTRACT

Background: Development Of Flexible Colonoscope Has Played An Important Role In Detecting Colonic Lesions**Material and Methods:** This was a retrospective study of all colonoscopic biopsies received at Department Of Pathology in a tertiary care hospital over a period of one year i.e from January 2017 to December 2017.**Results:** A total of 64 colonic biopsies received were analysed during the study period. Among 64 biopsies 46 (71.8%) were non neoplastic lesions while 18(28.1%) constituted neoplastic lesions. Chronic Nonspecific Colitis was the commonest finding constituting 24 cases (52%). Among the Neoplastic Benign lesions polyps were observed in 6 cases constituting 33%. Adenocarcinoma was present in 12 biopsies constituting 66.6% of Malignant lesions.**Conclusion:** Detection of various lesions can be done at early stage and treated with advancements in flexible colonoscopy

KEYWORDS

Colonoscopy, colitis, polyps, adenocarcinoma

INTRODUCTION:

Colon is a site for various inflammatory, infectious polyps and neoplastic disorders. These can cause symptoms like abdominal pain, bleeding per rectum, constipation. Development of flexible endoscopy by K. Nagasako in 1970 et al¹ revolutionised the examination of large intestine and rectum. The advantage of colonoscopy lies in visualizing the length of colon including distal ileum taking samples of mucosal epithelium and for therapeutic procedures like polypectomy, dilatation of strictures Shefali.H.Karveet al². The most accurate indicator of extent of colonic involvement in inflammatory bowel disorder is done by mucosal biopsies which also help in formulation of treatment modalities Greene Flet al³. The therapeutic uses of colonoscope include, evaluation of clinically significant diarrhea of unexplained origin, excision of polyp, treatment of bleeding from vascular malformation, balloon dilation of stenotic lesions Siddiquei Et al⁴. Newer innovative technologies like cap-assisted colonoscopy, the third eye, retroscope and endocuff can assist in evaluation of the mucosa behind haustral folds, rectal valves, ileocecal valve, and at flexures Thomas J.W⁵. Dye spray chromo endoscopy has become the standard surveillance tool for detection of dysplasia in inflammatory bowel pathology Rutter MD et al⁶

Aims and Objectives:

To study the distribution and histopathology of various lesions in colonoscopic biopsy

Material and Methods:

This was a retrospective study done at department of pathology in a tertiary care hospital over a period of one year i.e from January 2017 to December 2017. 64 colonoscopic biopsies were received which were immediately fixed in 10% formalin and tissue bits were processed according to routine histopathology processing. From each paraffin block 3 to 5 micron thick section were prepared and stained with hematoxylin & eosin stains and special stains were used where necessary.

RESULTS:

A total of 64 colonic biopsies received were analysed during the study period. Biopsies were obtained from various sites. Ages ranged from 5-83 years. 40 biopsies were from men and 24 from women Table 1. The male to female ratio was 1.66:1. The common presenting symptoms were bleeding PR, chronic diarrhoea, constipation, abdominal pain and loss of weight.

Among 64 biopsies 46 (71.8%) were non neoplastic lesions while 18(28.1%) constituted neoplastic lesions. Table 2 Out of the 46 non neoplastic lesions chronic nonspecific colitis was the commonest constituting 24 cases (52%). non neoplastic polyps was 10 cases (21.7%) and ulcerative colitis were 6 cases (13%) Table 3. Infectious

colitis was observed in 4 cases (8.7%) and ulcers constituted 3%

Non neoplastic lesions were found in all age groups Table 4.

Among the neoplastic lesions neoplastic polyps were observed 6 cases constituting 33% Table 5. These lesions were seen primarily in 4th to 7th decade of life. Table 6.

Adenocarcinoma was present in 12 biopsies constituting 66.6% of malignant lesions with majority of lesions seen in 4th to 6th decade. Table 7

Table 1: Age Clustering of Lesions

Age	Cases
0 – 20	1
11-20	2
21-30	6
31-40	15
41-50	14
51-60	13
61-70	9
71-80	3
81-90	1
N=64 ; Male =40 ; Female =24	

Table 2: Distribution of Lesions

Sl.No	Lesions	Number of cases (Percentage)
1	Non – neoplastic Lesion	46 (71.8%)
2	Neoplastic Lesion	18(28.1%)
Total		64

Table 3: Distribution of Non-neoplastic lesions

Sl.No	Lesions	Number of cases (Percentage)
1	Non-specific colitis	24(52%)
2	Non – neoplastic polyps	10(21.7%)
3	Ulcerative colitis	6(13%)
4	Infective colitis	4(8.7%)
5	Ulcers	2(4.34%)

Table 4:

Age distribution in non-neoplastic lesions

Lesion	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90
Non-specific colitis	1	1	2	7	7	3	2	1	0

Ulcerative colitis	0	0	1	4	1	0	0	0	0
Granulomatous inflammation	0	1	1	2	0	0	0	0	0
Inflammatory Polyps	0	0	0	1	1	3	1	0	1
Hyperplastic polyp	0	0	0	0	0	2	1	0	0

Table 5:
Distribution of Neoplastic (benign) lesions

Sl.No	Lesions	Number of cases
1	Tubular adenoma	5(27.77%)
2	Tubulovillous	1(5.55%)
Total		6

Table 6:
Age distribution in neoplastic (benign) lesions

Lesion	21-30	31-40	41-50	51-60	61-70	71-80
Tubular adenoma	1	0	0	1	2	1
Tubulovillous	0	0	1	0	0	0

Table 7:
Age distribution in Malignant lesions (Adenocarcinoma)

Lesion	21-30	31-40	41-50	51-60	61-70	71-80
Well differentiated	0	0	2	1	1	0
Moderately differentiated	0	0	2	2	2	0
Poorly differentiated	0	0	0	0	0	0
Rhabdoid	1	0	0	0	0	0
Mucinous	0	1	0	0	0	0

DISCUSSION:

Colonoscopic Biopsies Have Become the Mainstay for Early Diagnosis of Various Lesions of Colon like Inflammatory Bowel Disease, Infectious, Motility Disorders and Colorectal Tumors Out Of 64 Biopsies Non Neoplastic Lesions Were 71.8% And Neoplastic Lesions Were 28.1%.This was Comparable To Studies Done By Rangaswamy R,Et Al⁷(76.64% VS 23.36%)& Qayyum A, et al⁸(56.2% vs 43.1%) of the non-neoplastic lesion , chronic nonspecific colitis constituted 52%.this was comparable to studies done by Deshpande v et al⁹ , Non neoplastic polyps were 21.7% .They were present in age group 31-70 years, UlcerativeColitis was present in 13% of non-neoplastic biopsies . This co related with studies done by Rangaswamy r,et al⁷& Rajbhandari m et al¹⁰.Inflammatory Bowel Diseases are on the rise in our country due to lifestyle changes and dietary modifications Gautam R¹¹.Tuberculosis is a major disease burden in the Indian subcontinent . In the present study 4 cases of Colonic Tuberculosis were encountered.

Among the received biopsies 16 polyps were present of which non neoplastic was 21.7% and neoplastic was 33%.

Among the 12 colonoscopic biopsies diagnosed as malignant lesions 10 wereconventional adenocarcinoma,Mucinous adenocarcinoma and Rhabdoid adenocarcinoma were 1 case each.Adenocarcinoma constituted 66.6% of neoplastic lesions.Majority of cases were present in the 4th to 6th decade.Most common histologic type was moderately differentiated adenocarcinoma which corresponded with study done by Caliskanet al¹².

CONCLUSION:

Non neoplastic lesions of colon outnumbered neoplastic lesions,with nonspecific colitis being the commonest finding. Inflammatory bowel disease though less in our study, are on rise in our country as various studies showed. Adenocarcinoma was most common in 4th to 6th decade with moderately differentiated carcinoma more common. Advances in flexible colonoscopy have increased the prognostic and therapeutic

rates.

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