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Research Article

ANATOMICAL AND HISTOPATHOLOGICAL EVALUATION OF LARGE INTESTINAL TUMORS

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Abstract:

OBJECTIVE: To evaluate the anatomical and histopathological pattern of large intestinal tumors

PATIENTS AND METHODS: This descriptive case series study of two years was conducted at Liaquat University Hospital Hyderabad. The inclusion criteria of the study were patients ≥ 12 years of age, either gender, diagnosed as large intestine malignancy were recruited and enrolled in the study. All surgically resected intestinal specimens were grossly observed and after kept in 10% formalin sent to laboratory for histopathological examination. The data was recorded on pre-designed proforma and analyzed in SPSS 16. The frequency, percentages and mean \pm SD was computed for study variables.

RESULTS: During two year study period, total 30 patients diagnosed as intestinal malignancy. The mean age \pm SD for whole population was 58.75 ± 6.51 with female gender predominance. The rectal malignancy was commonly observed 15 (40%) followed by transverse colon 3(10%). The adenocarcinoma was predominant 22 (73.3%) well differentiates 24 (80%) and ulcero-infiltrative 12 (40%) pattern.

CONCLUSION: Tumors of the digestive tract show a wide variation in the anatomical and histological type, thus early evaluation is beneficial for appropriate management.

Keywords: Intestinal tumors, Rectum carcinoma and Histopathology.

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INTRODUCTION:

Gastrointestinal tumors account for a large proportion of all neoplasm, colorectal cancer ranks second among the most common malignancy worldwide [1-3]. Despite the length and vast pool of dividing cells the small intestine is still an uncommon site for tumor [4]. There is world wide variation in the distribution of these tumors that are due to exogenous factors rather than genetical [5]. The different histologic type of tumor at various gastrointestinal regions also differs in their prognosis and incidence [6]. The neoplasm arising from the mucosa intestines predominate over stromal and mesenchymal tumours [7-9]. Adenocarcinomas constitute 80% of all malignancies of gastrointestinal tract. Without any exception, all neoplasm with time metastasis and are incurable [10,11]. However effective and appropriate treatment in stromal tumors and lymphoma is likely to result in cure [12,13]. This study was planned to determine the frequency of various histopathologic types of neoplasm of intestines and knowledge about their occurrence will aid the health care provider in effective management of patient.

PATIENTS AND METHODS:**Table 01: Demographical, Anatomical and Histological Distribution of the Population**

AGE (yrs)	N= 30	PERCENTAGE (%)
30-39	3	10
40-49	5	16.6
50-59	12	40
60+	10	33.3
GENDER		
Male	20	66.6
Female	10	33.3
ANATOMICAL DISTRIBUTION		
Caecum	06	20
Ascending Colon	02	6.6
Transverse Colon	03	10
Descending Colon	02	6.6
Sigmoid Colon	01	3.3
Rectum	15	50
Anal canal	01	3.3
HISTOLOGICAL VARIANT		
Adenocarcinoma	22	73.3
Mucinous adenocarcinoma	05	16.6
Adenosquamous Carcinoma	03	10

This descriptive case series study of two years was conducted at Liaquat University Hospital Hyderabad. The inclusion criteria of the study were patients ≥ 12 years of age, either gender, diagnosed as large intestine malignancy were recruited and enrolled in the study. After taken informed consent, the detail history was taken along with specific clinical examination, the relevant investigations were advised and the subjects were managed accordingly. All surgically resected intestinal specimens were grossly observed and after kept in 10% formalin sent to laboratory for histopathological examination. The exclusion criteria of the study were all non neoplastic lesions of intestines and biopsy specimens and non cooperative patients. The data was recorded on pre-designed proforma and analyzed in SPSS 16. The frequency, percentages and mean \pm SD was computed for study variables.

RESULTS:

During two year study period, total 30 patients diagnosed as intestinal malignancy. The mean age \pm SD for whole population was 58.75 ± 6.51 with female gender predominance. The results of the study are mentioned in Table 1-2.

Table 02: The Gross Appearances and Differentiation of Masses

DIFFERENTIATION	N = 30	PERCENTAGE (%)
Well	24	80
Moderate	04	13.3
Poor	02	6.6
GROSS APPEARANCE		
Polypoid	04	13.3
Ulceroinfiltrative	12	40
Ulceroinproliferative	10	33.3
Fungating	04	13.3

DISCUSSION:

Tumors of the colon and rectum are the commonest tumors in the gastrointestinal tract, however, in Pakistan these malignancies are relatively uncommon but its incidence is increasing and varies from place. In the present series, 30 patients had tumor at colorectal region with female predominance consistent with the study by Prabhakar BR, et al[14]. Colorectal carcinomas were seen over an age range from 30 to 60 years with the peak occurrence in the 5th decade which is consistent to other studies by Devi KR et al[15] and Prabhakar BR et al[14] observed peak occurrence was 5th decade, although it was observed to be in 7th decade by Abdulkareem FB, et al[16]. The female predominance also consistent with the study by Mohammad A, et al[17] although Jackson-Thompson J, et al[18], shown male gender predominance with non significant statistical analysis. Diet is known to play a key role in the etiology of colorectal tumor and of the thirty individuals, 25 patients had mixed diet and 5 had vegetable diet and it was noticed that increased incidence of colorectal cancer in patients having mixed diet [19,20]. Clinically patients presented with variable signs and symptoms depending on the lesion type and its anatomical location. The commonest was intestinal obstruction, abdominal discomfort, bleeding per rectum and constipation [21]. The anatomical site commonly involved was rectum, constituting 15 (50%) of colorectal malignancies consistent with the studies by Devi KR, et al[15] and Abdulkareem FB, et al[16] while the study by Eisenberg N, et al shown left colon as the predominant site of origin of tumor [22]. The commonest growth pattern was ulcerative forms 12 (40%) distributed all over colon and rectum. The other forms observed were polypoid 4 (13.3%) and fungating masses 4 (13.3%). The observations are related to the former studies [23, 24]. The histological study showed well differentiated adenocarcinomas which is also consistent with study by Abdulkareem FB, et al[16]. In current series

majority of the patients (80%) presented at an advanced stage of cancer. Tumor of anal canal region was reported in one patient as adenocarcinoma occurring in old female presented as a polypoidal mass. The literature regarding anal canal malignancy was also conducted by Salati SA, et al[25].

CONCLUSION:

Tumors of the digestive tract show a wide variation in the anatomical and histological type, so early evaluation and treatment is beneficial for appropriate treatment and is supportive to provide better quality of life to the patient.

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