IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)
e-ISSN: 2279-0853, p-ISSN: 2279-0861.Volume 15, Issue 12 Ver. II (December. 2016), PP 58-62
www.iosrjournals.org

Retrospective Analysis of Histopathological Data of Malignant Colonic Lesions In Patients of Coimbatore Medical College From July-2015 to June-2016.

Dr.T.Srinivasan M.S[1],Dr.M.Muralidharan[2]
[1](Senior Assistant Professor, Department Of General Surgery,Coimbatore Medical College/Tamilnadu Dr.M.G.R Medical University, India)
[2](Post Graduate In M.S. General Surgery, Department Of General Surgery,Coimbatore Medical College/Tamilnadu Dr.M.G.R Medical University, India)

Abstract
Background : *Histopathological evaluation is a major component in the management of colorectal carcinoma. It acts as a important prognostic indicator in colorectal carcinoma resection and decides the adjuant therapy.*
Methods : *this retrospective analysis of histopathological data of one year duration conducted on colonoscopic and surgical biopsies of colorectal lesions.*
Results: *it shows one third of patient has rectal lesion and rest comprises entire colon, during presentation itself mostly it shows muscularis propria invasion. The commonest histopathological type being adenocarcinoma.*
Conclusion: *colonoscopic biopsy showing muscularis propria invasion can guide us about adjuvant chemo radiation later and patient can be prepared for that.*
Keywords: *histopathology, colonoscopy, tumour invasion, adenocarcinoma*

I. Introduction

Purpose Of The Project

Retrospective analysis of the histopathological data of colorectal lesions done from july-2015 to june-2016 at department of pathology, Coimbatore medical college will be analysed. purpose of the project is to analyse about the histological type, grade, distribution, site inorder to implement its prognostic importance.

Background

Cancers of the colon[1] and rectum altogether are the third most common tumour type worldwide. Cancer of the colon is more frequent than rectal cancer: in high-risk populations the ratio is 2: 1, while in low-risk countries rates are generally similar.

Risk Factors

Dietary Factors

Colorectal cancer most commonly occurs sporadically and is inherited in only 5%–10% of cases. Diet lack of fibers is definitely the most important exogenous factor identified up to now in the aetiology of colorectal cancer.

Non-Dietary Factors

Established non-dietary factors of colon cancer include

1. smoking tobacco,
2. chronic use of non-steroidal anti-inflammatory drugs (NSAIDs) Inflammatory bowel diseases (Crohn's disease and ulcerative colitis)
3. Patients who have had previous malignant disease are also at great risk of developing a secondary colorectal tumour.
4. The metabolic syndrome (high blood pressure, increased waist circumference, hypertriglyceridaemia, low levels of high-density lipoprotein cholesterol or diabetes/hyperglycaemia) had a modest, positive association with colorectal cancer incidence among men, but not among women and there was a clear relationship with the number of components present.

5. genetic factors

Genetic vulnerability to colon cancer has been attributed to either polyposis or non-polyposis syndromes. familial adenomatous polyposis (FAP), Hereditary non-polyposis colorectal cancer (HNPCC) syndrome.

Colon cancer may be diagnosed when a patient presents with symptoms or as the result of a screening programme. Because early cancer produces no symptoms and because many of the symptoms are non-specific (change in bowel habits, general abdominal discomfort, weight loss with no apparent cause, constant tiredness), aggressive efforts at detection through screening programmes are essential. Endoscopy is the main tool for diagnosis and it can be performed to varying lengths using either a sigmoidoscope or a colonoscope.

Staging

Treatment decisions are usually made in reference to the older Dukes or the Modified Astler–Coller (MAC) classification schema. Stages should preferably be defined by the TNM classification.

Disease relapse (local recurrence and/or distant metastases) following surgery is a major problem and is very often the ultimate cause of death. The prognosis of colon cancer is clearly related to the degree of penetration of the tumour through the bowel wall and the presence or absence of nodal involvement. Additional important parameters are grading, lymphatic or venous or perineural invasion, lymphoid inflammatory response and involvement of resection margins, all characteristics that Dukes' and TNM classifications do not take into account.

stage 0 (Tis N0 M0, T1 N0 M0).

Treatment options are: (i) local excision or simple polypectomy; (ii) segmentary resection for larger lesions not amenable to local excision.

stage I (T2 N0 M0) (old staging: Dukes' A or MAC A and B1).

Wide surgical resection and anastomosis.

stage II (T3 N0 M0, T4 N0 M0) (old staging: Dukes' B or MAC B2 and B3).

Standard treatment options: (i) wide surgical resection and anastomosis; (ii) following surgery, in high-risk patients (who present at least one of the previously mentioned features) adjuvant therapy could be considered in clinical practice [II, B].

stage III (any T, N1 M0, any T, N2 M0) (old staging: Dukes' C or MAC C1–C3).

(i) Wide surgical resection and anastomosis; (ii) following surgery the standard treatment is a doublet schedule with oxaliplatin and 5FU/folinic acid (LV) (FOLFOX4 or FLOX) [I, A]. When oxaliplatin is contraindicated monotherapy with FU/LV, mostly with infusional schedules (DeGramont, AIO regimen), or oral fluoropyrimidines (capecitabine) can be employed) [I, A].

Adjuvant Treatment

Adjuvant therapy is a systemic treatment administered after primary tumour resection with the aim of reducing the risk of relapse and death

Histopathological Evaluation[2,3,4,5] Is A Critical Component In The Management Of Patients With Colorectal Carcinoma (Crc).It Is The Most Powerful Tool For Assessing Prognosis In Crc Resection Specimens And Determines The Need For Adjuvant[6,7] Therapy[8] (Chemotherapy/Radiotherapy).

Study Design

Retrospective study.

Methodology

Retrospective analysis of the histopathological data of colorectal lesions done from july-2015 to june-2016 at department of pathology, Coimbatore medical college after obtaining institutional ethical committee clearance.

Table 1: sex distribution in colorectal biopsy candidates.

Sex	Total number
Male	62
Female	74

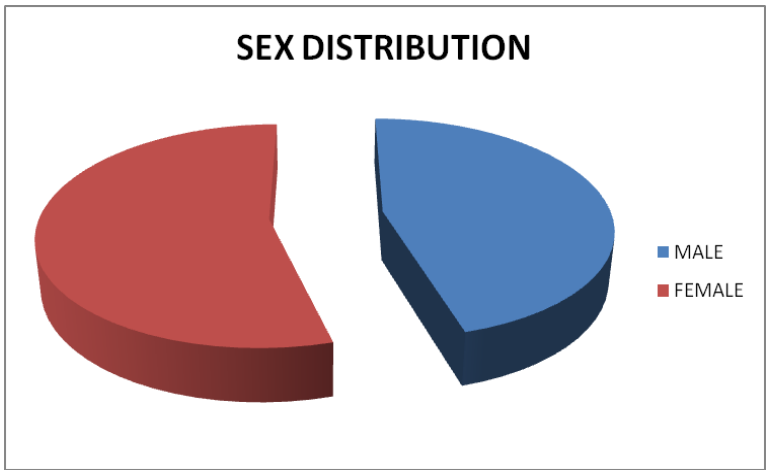

Fig 1 – sex distribution in colorectal biopsy candidates.

Table 2 – nature of the lesion based on HPE.

Nature Of Lesion	Total Number
Malignant	48
Non Malignant Including Inflammatory	88

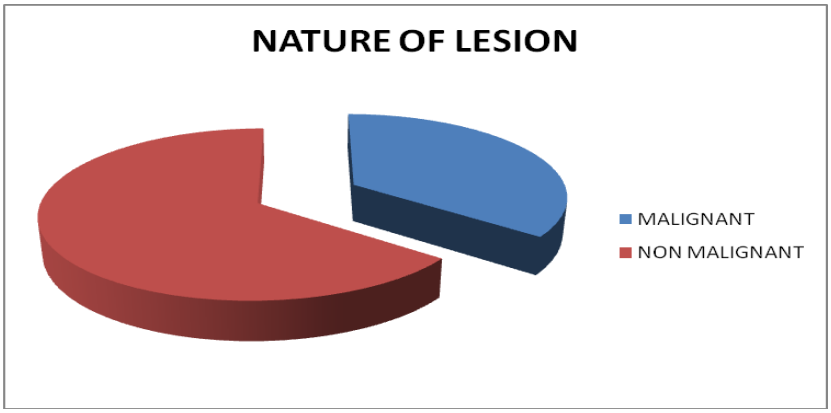

Fig 2 – nature of the lesion based on HPE.

Method Of Biopsy	Total Number
Colonoscopic	112
Punch	6
Incidental On Lapatotomy	18

Table 3 – Biopsy method

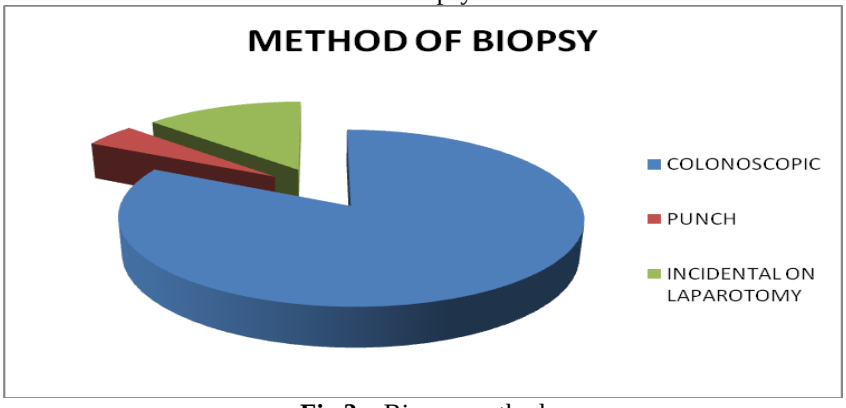

Fig 3 – Biopsy method

Table 4 – site of lesion

Site	Total Number
Rectum	38
Sigmoid	24
Desending Colon	8
Transverse Colon	18
Ascending Colon	22
Caecum	26

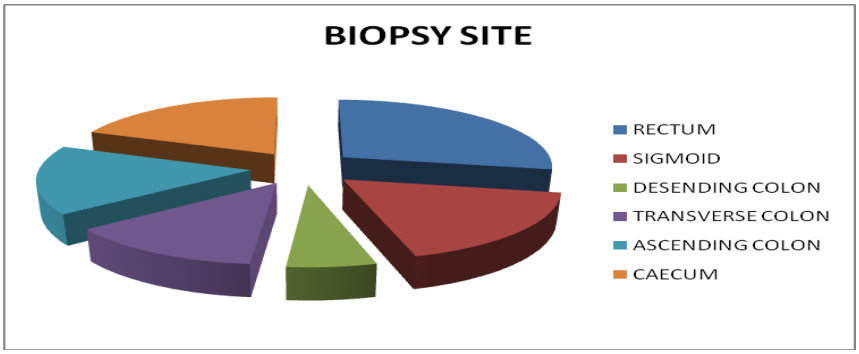

Fig 4 – site of lesion

Table 5 – histological grade of the lesion

Grade	Total Number
1 –Well Differentiated	12
2 –Moderately Differentiated	14
3 –Poorly Differentiated	22

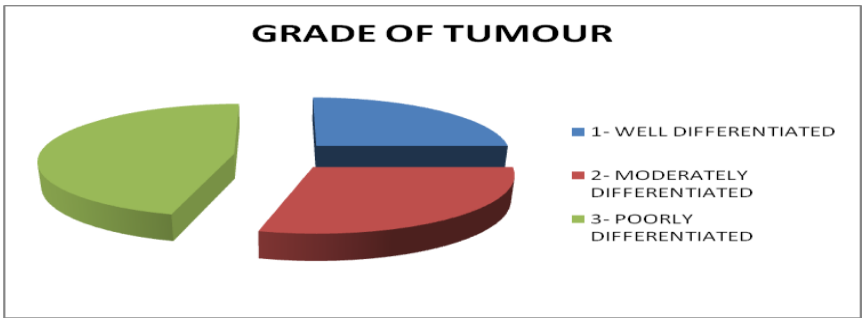

Fig 5 – histological grade of the lesion

Table 6 – tumour invasion

Tumour Invasion	Total Number
Insitu	6
Invades Submucosa	16
Invades Muscularis Propria	26

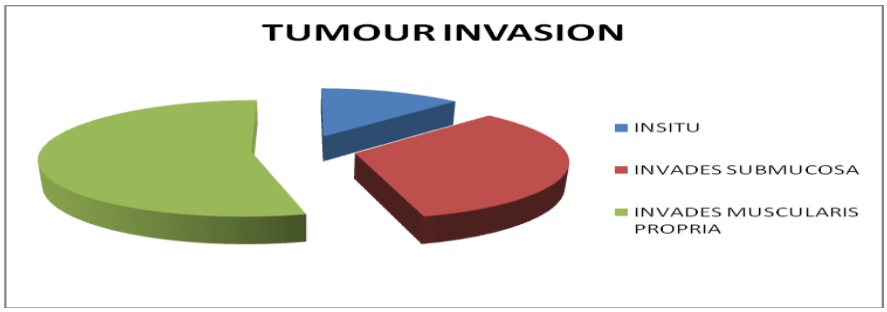

Fig 6 – tumour invasion

Table 7 – histopathological type distribution

Hpe Type	Total Number
Adeno Carcinoma	41
Mucinous Carcinoma	1
Squamous Cell Carcinoma	2
Mixed Neuroendocrine	2
Carcinoid	1
Undifferentiated	1

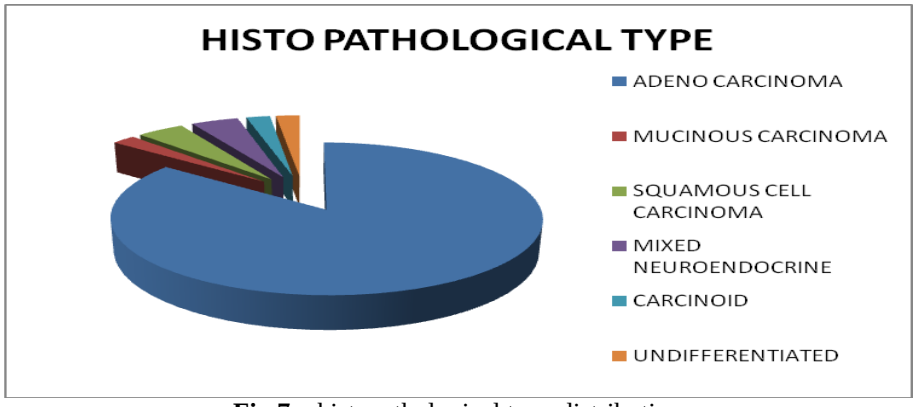

Fig 7 – histopathological type distribution

II. conclusion

Colonoscopic biopsy reveals invasion of muscularis propria in most of the cases and so the treatment can be planned earlier and ostomy sites can be decided. Common site of lesion is rectum in one third and two third occurs in rest of entire colon. Most common histopathological variety is adenocarcinoma and mixed neuroendocrine and carcinoid being rarer. Based on hisptopathological examination of grade, mitosis and differrentiation adjuvant chemoradiotherapy can be planned and also serves as a prognostic indicator.

References

[1]. Tomislav D, Vassiliki LT Colon Cancer, Adenocarcinoma. Available via Medscape CME. http://www.medscape.com/viewarticle/277496. update June 2009
[2]. Bull AD, Biffin AH, Mella J, et al. Colorectal cancer pathology reporting: regional audit. J Clin Pathol. 1997;50:138–142. doi: 10.1136/jcp.50.2.138. [PMC free article][PubMed] [Cross Ref]
[3]. Beattie GC, McAdam TK, Elliott S et al (2003) Improvement in quality of colorectal cancer pathology reporting with a standardized proforma – A comparative study. Blackwell Publishing ltd, Colorectal Disease 5:558–562 [PubMed]
[4]. Quirke P, Morris E. Reporting colorectal cancer. Histopathology. 2007;50:112–130. doi: 10.1111/j.1365-2559.2006.02543.x.[PubMed] [Cross Ref]
[5]. Keating J, Lolohea S, Kenwright D. Pathological reporting of rectal cancer: national audit. NZ Med J. 2003;116:1178.[PubMed]
[6]. Jill F, Sian M, Nicholas H (2007) Minimum Dataset for Colorectal Cancer, 1st edn
[7]. Nagtegaal ID, Marijnen C, Kranenberg EK, et al. CRM involvement is still an important predictor of local recurrence in CRC. AJSP. 2002;26:350–357. doi: 10.1017/S0364009402220115.[PubMed] [Cross Ref]
[8]. Green FL, Page DL, Fleming ID, et al. AJCC cancer staging manual. New York: Springer; 2002.