DELAY IN THE DIAGNOSIS AND PROGNOSIS OF CAECAL CARCINOMA - A STUDY OF 20 CASES

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Background: Caecum is the dilated part of the right colon situated in the right iliac fossa, therefore the etiology of this cancer is similar to those of the rest of the colon. Caecal carcinoma is more common in developed countries but it is not a rare disease in underdeveloped countries. This is more common in high socio-economic people who use less fibrous and purified diet. With improvement in health education and social status of the people of Pakistan, there is an emerging trend of Westernization in our society. This may increase the incidence of cancer in Pakistan. Carcinoma of caecum is curable disease if diagnosed early and treated. If we are aware of the pathogenesis, etiology, clinical presentation and management of the disease, we can offer a lot to these patients by diagnosing the caecal carcinoma at an earlier stage, this was the aim of this study. ***Methods:*** 20 cases (15 males and 5 females) of Carcinoma of Caecum were studied from January 1997 to December 1999. Out of these six patients presented in emergency ward, 2 as acute appendicitis and 4 as intestinal obstructions. After routine non-specific investigations, our specific investigations included USG abdomen, barium contrast studies and colonoscopy, Barium study and USG remained of primary importance. ***Results:*** Most of the patients were between age 45-65 years, oldest patient being 80 years old and the youngest was of only 30 years. Most of the patients presented as mass in the right iliac fossa and only some patients as intestinal obstruction. Right hemicolectomy with primary ileo-transverse anastomosis was our standard surgical procedure and was done in about 14 cases. But in some cases ileo-transverse by-pass operation was done as the growth was locally advanced. However, only the omental biopsy was taken in the cases where carcinoma was too advanced. ***Conclusions:*** We think that our sociodemographic factors put a hindrance in detection of this carcinoma at early stages and therefore curative procedures are difficult to bear good results.

INTRODUCTION

Although caecum is well situated for wide resection, carcinoma involving this part of colon does not have a favorable prognosis and it is believed to be due to diagnostic delay[1].

The occult nature of right-sided colon cancer has been frequently reported and delay in development of symptoms may be attributed to caliber of bowel, liquid nature of stools and distance from anal canal[2].

The symptoms in the carcinoma of caecum are not specific and are associated with anemia causing dizziness, light-headedness, tiredness, weakness and easy fatigue ability. This causes the patients to postpone the medical attention.

Unfortunately, the physicians cause a significant delay in treatment. Prognosis in carcinoma of large intestine is improved only by presymptomatic detection.

The carcinoma of caecum presents in many ways and is curable disease if diagnosed early and treated. Though it is more common in Western countries but it is not a rare disease in our country.

It may present in variable ways e.g., occult bleeding per rectum, visible bleeding through rectum, unexplained anaemia, mass in the right iliac fossa! acute appendicitis and even intestinal obstruction.

Due to these aspects, we planned to conduct the study on various aspects of caecal carcinoma as age, sex, clinical presentation and diagnosis. So that it could be diagnosed early and properly managed due to its occult presentation.

MATERIALS AND METHODS

This was a retrospective study in which patients of all ages and both sexes who had adenocarcinoma of caecum diagnosed histopathologically were included. It extended from January 1997 to December 1999 over two years' period, in Surgical Department including surgical Units, I, II, 111 and IV of Nishtar Hospital, Multan. Some patients were also shifted from Medical wards.

Upon admission special proformas were filled regarding the history and investigations and patients only shifted to liquid diet to prepare gut pre-operatively except the patient's intestinal obstruction which were managed on intravenous

fluids, nasogastric suction and Foley's catheter to keep the record of intake and output of the patient.

In elective patient's routine investigations were done, like blood complete examination, urine routine examination, blood urea/creatinine, blood sugar, blood grouping, X-ray chest, electrocardiography and plain x-ray abdomen. Specific investigations included stool examination for occult blood, barium meal follow through and enema, double contrast barium enema, ultrasound of abdomen and intravenous urography. Packed cell volume (PCV) and serum electrolytes were done in patients who were hemodynamically unstable. Colonoscopy and liver function tests were

done in a few patients. C.T. Scan (computed tomography) was not done due to lack of facility. Serum CEA (carcinoma- embryonic-antigen) level was only occasionally available.

Patients presenting in emergency as acute appendicitis or intestinal obstruction were routinely investigated and resuscitated followed by laparotomy. In these patients after routine blood complete urine complete picture, x-rays chest, x-rays plain abdomen in erect posture, PCV and serum electrolytes were done. Nasogastric tube and Foley's were passed and intravenous fluid was given to rehydrate. Blood for transfusion was also arranged before operation.

Right hemicolectomy with ileo-transverse anastomosis was standard procedure in all resectable cases, ileo-transverse bypass was done in unresectable cases of caecal growth. Right hemicolectomy with exteriorization of bowel ends was done in patients presenting with intestinal obstruction and hemodynamically unstable or with peritoneal contamination. In cases where growth was disseminated extensively in peritoneal cavity, omental biopsy was done and abdomen closed. The patients were advised for follow-up initially monthly and then after every 3 months.

Results were compared with those given in the recent literature and conclusions drawn.

RESULTS

The results of the study are summarized in tables 1-5.

Most of the patients came from periphery and from poor socio-economic status and belonged to labour class. Only 2 male patients were government servants of class-II. All the female patients were housewives, married and has more than three children. Only one female patient of age 45 years was schoolteacher and was having only two children.

Fifteen patients had pain on presentation; 5 had localized pain in right iliac fossa while other had generalized abdominal pain, whereas only two patients did not complain of pain. Ten patients had vomiting, 9 were constipated, 5 had diarrhea with mucus and 2 had diarrhoea alternating with constipation. Fourteen patients had significant weight loss on admission. Only 2 patients were having fever on admission. 17 patients had palpable mass in right iliac fossa or right lower abdomen including the patients presenting as an emergency. Out of these only 6 had tenderness as well, 10 of them were aware of the mass.

Table-1: Sex incidence of caecal carcinoma

Gender	No. of Patients	Percentage
Males	15	75
Females	5	25

Table-2: Age Incidence of caecal carcinoma

Range of Age	Male	Female	Total
10120	1	0	1
21-30	0	0	0
31 -40	0	0	0
41-50	2	2	4
51 -60	3	1	4
61-70	8	2	10
71-80	1	0	I
Above 80	0	0	0
	15	5	20

Table-3: Mode of Presentation of caecal carcinoma

Mode of clinical presentation	No. of patients	Percentage
Mass in RIF	14	70%
Acute Appendicitis	2	10%
Intestinal Obstruction	4	20%

Table-4: Operative Procedures adapted

Operative procedure	No. of patients	Percentage
Right hemicolectomy + primary ileo-transverse anastomosis	14	70%
Right hemicolectomy + exteriorization of bowel ends	2	10%
Only ileo-transverse bypass operation without reaction	2	10%
Only omental biopsy without resection	2	10%

Table-5: Morbidity and Mortality rate

Complication	No. of patients	Percentage
Burst Abdomen	1	5%
Faecal fistula	2	10%
Septicaemia	1	50%
Jaundice	2	10%
Cardiac arrest	1	5%
Death	4	20%

Five patients had haemoglobin below 10 gm/dl. ESR (Erythrocyte Sedimentation Rate) was done in 12 patients and it was below 40mm after 1 hour in 2 cases and higher in the rest. Stool for occult

blood was tested in 12 cases and was positive in 9 casts. X-rays chest were done in all cases and in erect posture of the patients presenting as an emergency and they showed intestinal obstruction in 4 patients. Barium study was done in 10 cases and showed evidence of tumors in all of them. Colonoscopy was done in one patient only who was shifted from medical ward.

Total hospital stay depended upon the patient condition. It ranged from 10-40 days and post-operative hospital stay ranged from 8-30 days.

The 2 patients from whom the omental biopsy was taken, expired after 7 and 10 days of operation respectively. 2 patients developed faecal fistula that healed on conservative treatment. Only I patient expired due to septicaemia. That patient was operated in emergency and bowel ends were exteriorized. In another patient abdomen was burst and secondary suturing was done.

DISCUSSION

The true incidence of "carcinoma of caecum" is not known but it shows increased incidence in our study of “20 patients" as compared to that reported by others[3].

Carcinoma of caecum is the disease of old age but it can occur in younger people also. Most of the patients in our study were between the ages 50- 70. The average age being 60-65 years and age range was between 30-80 years in our study of 20 patients. This is comparable to that given by Gennero. Phis age incidence is slightly earlier than maximum age incidence in developed countries. Maximum age incidence over there is about 70-80 years. This earlier presentation of caecal cancer may not be the true age incidence because it is very difficult to decide about it in a small study of only 20 patients. Similarly, high incidence in old age in developed countries may be due to increased average life of the population. Young patients are not immune to this cancer. The youngest patient in our study was about 30 years and was male.

As regards the sex distribution the carcinoma of caecum (right-sided colon) is more common in females than in males'[1]. This may be due to the fact that females suffer the biliary diseases more than males and bile acids are thought to be carcinogen responsible for this. But in our study the male to female ratio was 3:1 quite opposite to the above study. But it is more consistent with study of Gennero.

According to our results mass in the right iliac fossa is the major and the common complaint.

14 out of 20 patients 70% compared to 8 of 66 reported by Gennero[3]. Mzabi[5] found a palpable mass m 50% out of his 109 patients

This growth in the caecum produces obstructive symptoms very rarely due to wide Lumen of caecum, contents here being liquid, and contents of carcinogen in diet remain for short period in contact with caecal wall[6]. Only 4 patients presented with intestinal obstruction in our study. Only 2 patients were febrile and presented as acute appendicitis. This is a rare presentation of carcinoma of caecum.

Fourteen patients had significant weight loss on admission and 5 patients had haemoglobin below 10gm/dl. These clinical features prove that in Pakistan patients present later as compared to Western World. Another point suggests that in Pakistan caecal carcinoma is more prevalent in the poor low socio-economic people.

Barium study was done in 10 nonemergency patients and showed the evidence of disease in all the cases. Gennero reported positive results in 50 out of 54 cases while Mzabi[5] reported normal barium enema in 8 out of 92 cases of carcinoma of caecum.

The only curative treatment for cancer of colon is radical surgical excision[7]. In our study, I curative resection was done in 14 patients with right | hemicolectomy and primary ileo-transverse anastomosis. Other procedures were adapted in a few other cases that are given in table 4.

The 2 patients who died within 10 days of operation were above 60 years of age. Another ' patient died of septicaemia after one month of operation and was of 70 years’ age. Another patient I died after 15 days suddenly most probably due to cardiac arrest, but his pre-operative EGG had no I changes. Gennero had reported 12 perioperative deaths out of 66 cases.

Histopathologst reported 10 cases- in DUKE’S stage “B” and no case in DUKE’S stage” A”. Therefore, there is a trend for late presentation.

Follow-up was not complete. Only a few patients continued the advised visits and are still being followed up. Half of the patients did not report after 3-5 months of post-operative period. Gennero had reported over all 5 years’ survival rate of 32.7%in carcinoma of caecum.

Curative resection was possible only in about half cases of our study. This is due to lack of health facilities, lack of awareness of clinicians and illiteracy that hinders early detection and treatment.

Patients with positive haemoecult test and positive clinical history should be investigated better quality double contrast barium enema and flexible colonoscopy. Easy and cheap availability of testing of stool for occult blood with access contrast enema and routine colonoscopy can lead to detection of early, presymptomatic cases with consequent increase in curative resection rates and improved survival.

Barium enema, colonoscopy and abdominal ultrasound are important and reliable investigations for detection of caecal carcinoma[8]. Ultrasound detected the primary lesion, its size, extent and even secondary in the liver and also to stage the tumor.

Caecal carcinoma can present in unusual way by involving the adjacent structure and organs[9]. Surgery is the mainstay in the treatment of carcinoma of

caecum I Right hemicolectomy with primary ileo-transverse anastomosis is a safe procedure in fit patients even in emergency.

If the facility of estimation of CEA, is available, it can detect the cases early and help in determination of adequacy of curative resection and follow-up for recurrence[11,12]. Operative mortality can be reduced by proper selection of patients for various surgical procedures and it can even further improve if operated upon by the experienced surgeon and specialist.

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