

Colorectal cancer in a group of Iraqi patients

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Abstract:

Background: Colorectal cancer is the second most common internal malignancy and the second leading cause of cancer death (after lung cancer). The condition becomes increasingly common after the age of 50. Because it is a common problem in certain areas of the world and because its insidious nature of onset that sometimes is too late when diagnosed, keeping high index of suspicion with developing screening tests that are reliable and easily performed are vital in diagnosis.

Objective: To highlight some of the demographic, laboratory, and histopathological criteria of colorectal cancer in a group of Iraqi patients.

Methods: This study is a descriptive cross sectional study that had enrolled 30 patients with colorectal cancer. The patients included in this study had been selected from those patients who had attended the endoscopic unit / department of medicine at Al-Yarmouk teaching hospital during the period between the 1st of September 2006 to the 1st of September 2007. Patients diagnosed to have colorectal cancer by colonoscopy, and biopsy samples were taken for histopathological study, and blood samples were taken for carcinoembryonic antigen.

Results: This study revealed that 80% of the patients were older than 50 years of age with a male: female ratio of 2.75:1.63. 33% of the patients were smokers. The study revealed that the presentation of the disease is usually insidious with abdominal pain, change in bowel habit and haematochezia and melena seen in 83.34% of the patients. 66.67% of the tumors were located in the rectosigmoid. All the tumors were adenocarcinoma. Carcinoembryonic antigen was +ve in 60% of the patients.

Conclusion: Colorectal cancer is more common in old male patients with smoking habit.

Key Words: Colorectal cancer, risk, presentation, diagnosis

Introduction:

Colorectal cancer is the second most common internal malignancy and the second leading cause of cancer death (after lung cancer) ⁽¹⁻³⁾.

The condition becomes increasingly common after the age of 50. Because it is a common problem in certain areas of the world and because its insidious nature of onset that sometimes it is too late when diagnosed. ⁽⁴⁻⁶⁾

Keeping high index of suspicion with developing screening tests that are reliable and easily performed are vital in diagnosis. ⁽⁷⁻⁸⁾

Risk factors for the development of colorectal cancer are: Diet: The disease occurs more often in upper socioeconomic population who live in urban areas. Meat protein, and dietary fat and oil as well as elevations in the serum cholesterol concentration. ^(9,10) Hereditary factors: as many as 25% of patients with colorectal cancer have a family history of the disease, suggesting a hereditary predisposition. Inherited large-bowel cancers can be divided into two main groups:

Polyposis syndromes, Nonpolyposis syndromes. ^(11,12) Inflammatory bowel disease. The incidence increase in long-standing extensive ulcerative colitis. ^(13,14) Other risk factors are: Streptococcus bovis bacteremia, Uretrosigmoidostomy, tobacco & alcohol. ⁽¹⁵⁾ and Acromegaly & pelvic radiotherapy. ⁽¹⁶⁻¹⁷⁾

The most common colon cancer cell type is adenocarcinoma which accounts for 95% of cases. Other, rarer types include: lymphoma & Squamous cell carcinoma. ⁽¹⁷⁾

This study was designed to:

1-study the demographic features regarding risk factors, laboratory and histopathological findings of a group of Iraqi patients with colorectal cancer.

2-Assess the relationships between risk factors and compare them with the results obtained in similar other studies.

3-Assess the use of carcinoembryonic antigen test as a marker to predict the likelihood of colorectal cancer.

Patients and Methods:

This study is a descriptive cross sectional study that had enrolled 30 patients with colorectal cancer.

The patients included in this study had been selected from those patients who attended the Endoscopic unit /

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department of medicine at Al-Yarmouk teaching hospital during the period between the 1st of September 2006 to the 1st of September 2007. Patients diagnosed to have colorectal cancer by colonoscopic examination, and four biopsy samples were taken for histopathological study, and blood samples were taken for carcinoembryonic antigen test. Thorough

questioning, history taking and clinical examination were done to the patients. Patients then were sent for ultrasonography and CT scanning looking for secondaries. Collected data had been summarized and arranged in the form of tables and figures in term of number and frequency. Statistical Chi square test has been used to analyze the data obtained.

Results:

This study had enrolled 30 patients with colorectal cancer proved by colonoscopy and histopathological examination of biopsy samples. Their ages ranged from 28 – 85years (mean 65.83).80% of the whole sample (24 out of the 30 patients) were older than 50 year-old and 20% (6 out of the 30 patients) were younger than 50 .Regarding gender of the patients who had been included in this study , male patients were 22 (73.35% of the sample) , and female patients were 8 (26.65%) , with a male to female ratio of 2.75: 1 .table-1 show patients' distribution according to age and sex .With detailed questioning of patients and history taking we found that: All patients were non-alcoholics.63.33% of the patients (19 out of the 30) were smokers , of whom 16 patients (84.21% of the smoker sample) were male patients and 3 patients (15.78%) were females.

Regarding symptoms that brought the patients' attention, we found that ; the commonest presenting complaint was abdominal pain , which was the chief complaint in 10 (33.33%) , the next most common complaint was change in bowel habit which was the complaint of 8 patients (26.67%), 7 (23.34%) were complaining of haematochezia, another 3 patients (10%) were complaining of weakness , 1 patient (3.33%) were complaining of anaemia, and lastly 1 patient (3.33%) was presented with weight loss.

Table-1: Demographic features of the sample

<i>Patients' age (year-old)</i>	<i>Male</i>		<i>female</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
<30	0	0	1	3.33
30-39	2	6.66	1	3.33
40-49	2	6.66	0	0
50-59	2	6.66	1	3.33
60-69	4	13.33	2	6.66
>70	12	40	3	10
Total	22	73.35	8	26.65

Table-2: patients' distribution according to smoking behavior

<i>Smoking behavior</i>	<i>Male</i>		<i>female</i>		<i>Total</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
Smoker	16	53.33	3	10	19	63.33
Nonsmoker	6	20	5	16.67	11	36.67
Total	22	73.33	8	26.67	30	100

Regarding family history; none of the patients tested had a family history of GI cancer. Regarding the anatomical site of the tumor as localized by colonoscopy ; the main site was the rectosigmoid which was the location of the tumor in 20 patients (66.67% of the sample), 6 patients (20%) have their tumor in the caecum or ascending colon, 4 patients (13.33%) have the tumor in the remaining parts of the colon. Regarding morphological features of the tumors of the colon 21 (70%) have fungating mass, while the rest 9 patients (30%) have ulcerative lesion, there is no Polyposis syndrome in our patients, and non have infiltrating lesion.Histopathologically all of the 30 patients (100%) have adenocarcinoma of whom 19 patients have well-differentiated tumor and 11 have poorly-differentiated adenocarcinoma. We looked for secondary deposition of the primary colorectal cancer by clinical examination and abdominal sonography and CT scanning, and we found that only 3 (10%) have secondary deposition, all of them (100%) were in the liver. Regarding CEA study 18 patients (60%) were positive in which the value of CEA >5.0 nanogram/ml (in smokers) and the value is >3.0 nanogram (in non-smokers), while 12 patients (40%) where negative for the test.

Table-3 Patients' distribution according to the main presenting clinical features

<i>Presenting clinical feature</i>	<i>No.</i>	<i>%</i>
Abdominal pain	10	33.33
Change in bowel habit	8	26.67
Haematochezia	7	23.34
Weakness	3	10
Anaemia	1	3.33
Weight loss	1	3.33
Total	30	100

Table-4: patients' distribution according to their site of tumor as located by colonoscopy

<i>Site of tumor by colonoscopy</i>	<i>No.</i>	<i>%</i>
Rectosigmoid	20	66.67
Caecum or ascending colon	6	20
Remaining parts of the colon	4	13.33
Total	30	100

Discussion:

In our study we tried to highlight certain demographic, laboratory and histopathological criteria of the disease in our patients. We found that the disease in male is about as twice and three quarters as in females which is quite consistent with the figure in the world as reported in many studies.^(17,18) In our study most of patients with colorectal cancer (80%) were older than 50 years of age and it was less common below the age of 30. Most of the universal studies that have been conducted in this subject revealed that the disease incidence is increasing with age.⁽¹⁹⁾ Smoking is one of the risk factors for colorectal cancer, in our study, smoking was more common among male patients than females. Chao A, Connel CJ, et al concludes that habitual smokers were found to be at a 2 fold greater risk than non-smokers and even ex-smokers contracted the disease more frequently than those who had never smoked. In our study all patients were non-alcoholics a fact that can be explained in our country by the non-prevalence of this habit in the community so it is not a major problem and this was the same in other communities as demonstrated by certain studies that shows drinking could have a synergistic augmented relationship with smoking but not a significant risk factor alone.⁽²⁰⁾ Colorectal cancer is known to be one of the hidden cancers with variable presentation and without regular screening it is usually diagnosed too late^(21,22). Regarding the location of the cancer as seen

by colonoscopy in our study about 66.67% of the tumors were in the rectosigmoid and only 20% of the tumors are located in the caecum or ascending colon and 13.33% in remaining parts of colon, this is almost consistent with most of the studies.^(23,24) In Thorn M, Bergstrom R, Kressner U, et al study most of the tumors were in the rectosigmoid⁽²⁵⁾, in this study the result was the same as our results with 67% of the tumors were in the rectosigmoid. Our study failed to express any relationship between family history of colorectal cancer and the development of colorectal cancer in the patients but we should keep in mind the small size of the sample. Regarding morphological features of the tumors of the colon 21 out of the 30 patients (70%) have fungating mass, while the rest 9 patients (30%) have ulcerative lesion, there is no polyposis syndrome in our patients, and none have infiltrating lesion. All the tumors are adenocarcinoma which is quite consistent with textbook data.

We tested for Carcinoembryonic antigen, which showed that it was positive in 60% of patients with colorectal cancer. In Kapsopoulou-Dominos K., Anderer F. A study the carcinoembryonic antigen was positive in 53%, which is nearly compatible with our study.⁽²⁶⁾

Conclusion: Colorectal cancer is more common in old male patients with smoking habit; insidious abdominal pain is the commonest presenting symptoms.

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