ORIGINAL ARTICLE

PATTERN OF ABDOMINAL DISEASES PRESENTING TO SURGEONS: A DISTRICT GENERAL HOSPITAL EXPERIENCE IN ENGLAND

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ABSTRACT

Background: General surgeons frequently come across patients with abdominal diseases. The purpose of this study was to determine the pattern of abdominal diseases in general surgical field in England.

Material and Methods: This descriptive study was conducted in the General Surgical Unit at Barnsley District General Hospital, NHS Trust, Barnsley, South Yorkshire, England, from July 17, 2006 to August 16, 2006. Adult patients presenting to general surgical clinics were studied. The data was collected in the form of histories of patients and detailed review of their clinical records.

Results: During the study period 120 adult patients were observed; out of which 73 were having abdominal problems; 27 (37%) males and 46 (63%) females. Among these, 22 (30.13%) patients had herniae; 17 (77.27%) inguinal and 5 (22.72%) para-umbilical. Thirteen (17.80%) patients had cholecystitis, 11 (15.06%) haemorrhoids, 6 (8.21%) diverticular disease, 6 (8.21%) ulcerative colitis, 5 (6.84%) irritable bowel syndrome and 4 (5.47%) crohn's disease. Three (4.10%) patients were having gastric carcinoma, 2 (2.73%) colonic carcinoma and 1 (1.36%) carcinoid tumor.

Conclusion: Herniae are the most common abdominal disorders presenting to general surgeons in England. Cholecystitis and haemorrhoids are the next common conditions. Malignancy of the gastrointestinal tract is also not rare.

Key words: Surgery, Abdominal disease, Hernia, England.

INTRODUCTION

A wide variety of abdominal diseases present to surgeons. The pattern of these diseases varies in different communities. Patients in England present to general surgeons with abdominal diseases like carcinoma stomach, colorectal carcinoma, inflammatory bowel diseases, irritable bowel syndrome, carcinoid tumors, hemorrhoids, diverticular disease, herniae and cholecystitis.

Patients with inguinal herniae present with discomfort and complain of dragging sensation in the groin.[1] Inguinal hernia repair is one of the most common operations undertaken in routine surgical practice. It should be performed soon after the diagnosis is made to minimize the risk of adverse outcomes.[2] Patients with para-umbilical herniae present with pain and swelling in the umbilical region.

Cholecystitis may be acute or chronic. Patients with acute cholecystitis present with continuous pain of sudden onset in the right hypochondrium exacerbated by movement and breathing.[3] Some patients present with indigestion and pain after eating fat containing foods (chronic type).

Patients with hemorrhoids usually present with a long history of constipation.[4] Hemorrhoidal disease is significantly influenced by sex, race and geographical distribution; being more common in caucasians as compared to black races, in high social class and in men more than women. In black races constipation and hemorroidal disease present more commonly in the lower social class. Although numerous etiologic risk factors have been proposed, the exact pathogenesis of hemorrhoids remains unknown.[5]

Diverticular disease emerged as a common problem in the western countries over the course of 20th century. Some patients present with loose stools while others are constipated with tenderness in the lower abdomen especially on the left side. It may lead to diverticulitis, intestinal obstruction, hemorrhage and fistula formation. Diverticu-

lar disease is prevalent in UK mainly due to the lack of dietary fibre.[6]

with carcinoma stomach present with indigestion, epigastric pain, loss of appetite and loss of weight.[7] Pernicious anemia, gastric polyps and chronic gastric ulcer are known to be the pre-malignant conditions. Gastric cancer still has a disease-specific five year survival of less than 30% and overall survival of about 15%.[8] The quality of life of patients who undergo gastrectomy is poor owing both to the severity of disease itself and mutilation of the upper gastrointestinal channel after the reconstruction. Patients with carcinoid tumors present with un-explained small bowel obstruction causing a central colicky abdominal pain, weight loss and change in bowel habit.[9] Acute obstruction may develop and a mass may be palpable.

One of the common gastro-intestinal (GI) tumors is carcinoma colon. Susceptibility to colorectal cancer has been associated with several environmental and dietary risk factors including food derived carcinogens like heterocyclic amines and polycyclic aromatic hydrocarbons.[10] Colonic carcinoma can be classified into right and left sided. The symptoms depend upon the site of the lesion. Most right-sided colonic tumors present with anaemia, weight loss, a mass and dull pain in the right iliac fossa or colicky pain of small bowel obstruction. The symptoms of left sided colonic tumors differ from it. They present with a change in bowel habit, often with variable periods of constipation interspersed with episodes of explosive diarrhea and the passage of loose stools.[11]

Patients with ulcerative colitis present with watery diarrhea, sometimes with a rectal discharge, either blood stained or purulent. It has been speculated that environmental factors play a role in the etiology of ulcerative colitis. The birth-cohort pattern indicates that acquisition of ulcerative colitis is strongly influenced by the environmental risk factors and that exposure to these factors occur during an early period of life. Crohn's disease may be acute or chronic. Patients present with diarrhoea which may precede the attack of abdominal pain (acute) and mild diarrhoea extending over many months, occurring in bouts accompanied by intestinal colic, secondary anaemia and weight loss (chronic).

Irritable bowel syndrome (IBS) is a functional bowel disorder. It remains a poorly understood and mysterious medical condition. Patients are suffering from abdominal pain and abnormal bowel function for unexplained reasons. The impact of these symptoms has a detrimental effect on the health-related quality of life.[12]

In spite of the high quality health care provided in England, patients have to wait for months for elective surgery due to various reasons including shortage of doctors and lack of funds.

The purpose of this study was to determine the pattern of abdominal diseases in general surgical field in England. This may help the decision makers in future planning.

MATERIAL AND METHODS

It was a descriptive study conducted at the General Surgical Unit at Barnsley District General Hospital, NHS Trust, Barnsley, South Yorkshire, England, from July 17, 2006 to August 16, 2006. Adult patients presenting to general surgical clinics were studied. Sampling method was by convenience. Data was collected in the form of histories along with a detailed review of their clinical records.

Relevant investigations were performed for confirmation of diagnosis and more complicated cases especially those with neoplastic diseases were discussed in detail in the Multi Disciplinary Team (MDT) meetings which comprised of upper and lower GI surgeons, clinical oncologists, radiologists and histopathologists, for decision. Percentage of each disease was calculated with its predilection for specific sex and age group.

RESULTS

One hundred and twenty adult patients were observed during this period in the general surgi-

Table-1: Frequency of various abdominal diseases presenting to surgeons. (n=73)

Disease	Number of patients	Percentage
Herniae	22	30.13
Cholecystitis	13	17.80
Haemorrhoids	11	15.06
Diverticular Disease	6	8.21
Ulcerative colitis	6	8.21
Irritable Bowel Syndrome	5	6.84
Chrohn's Disease	4	5.47
Ca Stomach	3	4.10
Ca Colon	2	2.73
Carcinoid Tumour	1	1.36

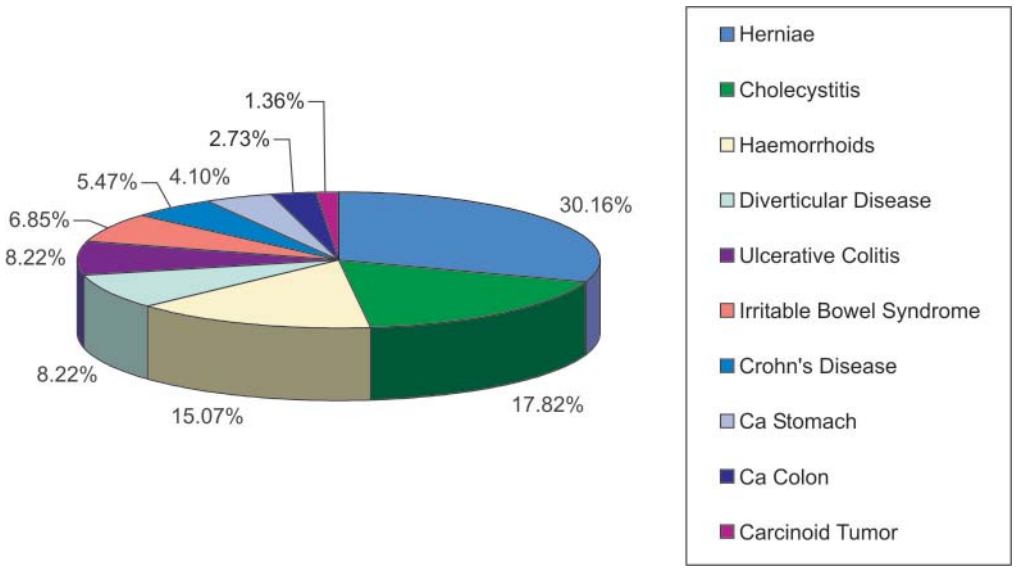

Fig. 1: Frequency of various abdominal diseases presenting to surgeons.

cal unit, out of which 73 were having abdominal problems; 27 (37%) males and 46 (63%) females. Age range was 20-60 years. Among these, 22 (30.13%) patients presented with herniae; 17 (77.27%) inguinal and 5 (22.72%) para-umbilical. Inguinal herniae were equally common in both the sexes and all age groups, where as para-umbilical herniae were more common in females between 30-60 years of age.

Thirteen (17.80%) patients had cholecystitis; common in females between 30-60 years age. Eleven (15.06%) patients had haemorrhoids; equal in both the sexes above the age of 20 years. Six (8.21%) patients had diverticular disease; common in females between 50-70 years of age. Six (8.21%) patients were having ulcerative colitis; equal in both the sexes, between 20-40 years age. Five (6.84%) patients presented with irritable bowel syndrome; common in females between 35-45 years age. Four (5.47%) patient were having chrohn's disease; more common in woman between 30-40 years age. Three (4.10%) patients were having carcinoma of the stomach; more common in women above 50 years of age. Two (2.73%) patients were having carcinoma colon; equal in both the sexes over 50 years of age. One (1.36%) patient had carcinoid tumor in a male of 58 years. (Table-1, Figure-1)

DISCUSSION

In our study herniae, cholecystitis, hemorrhoids and diverticular disease were more common. Inguinal herniae were common in both the sexes occurring in all age groups while para-umbilical herniae were common in females above 30 years of age. This may be due to its association with pregnancy. Anything which increases the intra abdominal pressure posses a risk for the development of hernia.[13] Hemorrhoids were also common prevailing condition in our study. All these patients were having constipation as also mentioned in other studies.

Among the abdominal diseases malignancies were less common in our study as compared to the problems like herniae and cholecystitis. On top of the list was carcinoma of the stomach which is a common cause of death in men. This was followed by carcinoma of the colon in our study. Majority of colon cancers in our study were found in the sigmoid colon. According to other studies the incidence of colorectal cancer in England and Wales is steadily rising. It is more common in males and has increased more rapidly in males than in females. Between 1971 and 1997, the total number of cases increased by 42%. The direct age-standardized incidence is increased by 20% in males and 5% in females. The site distribution was reported as; rectum 38%, sigmoid 29%, caecum 15%, transverse colon & flexures 10%, ascending colon 5% and descending colon 3%.[11]

Carcinoid tumors are rare and only one patient was observed in our study. In a study from the Trent region of UK, carcinoid tumors have an incidence of 0.7 cases per 100,000 population. The small bowel is the commonest site (36%), followed by the lung (22%) and appendix (13%). Analysis of 24 cases in that study demonstrated diarrhoea in 17, abdominal pain in 17 and flushing in 12 patients, whereas 3 patients presented with unexplained small bowel obstruction causing a

central colicky abdominal pain, weight loss and change in bowel habit.[9]

In our study of selected population of patients presenting to surgeons the prevalence of patients with IBS was 6.84%. In another study the community-based prevalence of diagnosable IBS, defined as three or more symptoms, was 10.5% (6.6% men and 14.0% women).[12]

In our series no patient of acute appendicitis was observed. This may be due to the limited time and small number of patients. Also because these patients are usually operated in emergency and we studied those patients who presented to the outdoor surgical clinics.

CONCLUSION

Herniae are the most common abdominal disorders presenting to general surgeons in England. Cholecystitis and haemorrhoids are the next common conditions. Malignancy of the gastrointestinal tract is also not rare.

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