



DEMOGRAPHIC DATA COMPARISON OF PREVALENCE OF MASS IN RIGHT ILIAC FOSSA: A PROSPECTIVE HOSPITAL BASED STUDY

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Received for publication: January 23, 2014; **Revised:** January 29, 2014; **Accepted:** February 17, 2014

Abstract: Mass in the right iliac fossa is one of the commonest problems faced in surgical practice. The present study was conducted to find the incidence of mass in patients attending surgery department. A total of 50 cases were included in the study. Their demographic data was collected and analyzed to find the incidence of mass in right iliac fossa. The results showed a high incidence of appendicular mass (44%) with male preponderance; followed by ileocaecal tuberculosis and carcinoma of caecum. The incidence of appendicular mass was highest in the age of 21-30 years. Appendicular abscess and ileocaecal tuberculosis showed highest incidence in the age group of 31-40 years. In the age group of 51-60 years carcinoma of caecum was observed the most. Several factors like age, gender, food habits and occupation caused the development of mass in the abdomen. Coolies and agriculturists were more prone to development of mass in the right iliac fossa.

Keywords: Appendicular, Caecum, Iliac Fossa, Ileocaecal tuberculosis

INTRODUCTION

The right iliac fossa (RIF) is easily prone to develop a mass because of anatomical and functional reasons. Identification and diagnosis of a palpable mass in lower right abdominal quadrant can be difficult in certain cases. A higher incidence of RIF mass has been observed in Asian as compared to the western population [1,2]. Several factors have been identified in the development of a RIF mass. These include age, gender, life style and other factors. All these factors lead to accumulation of collagenous tissue during the process of healing of abdominal diseases leading, eventually, to the development of a mass in the RIF. These masses can be of infective and malignant etiology [3,4]. Development of granulomas in the mucosa or the Peyers' patches in abdominal tuberculosis presents as a RIF mass [5]. Acute appendicitis remains a common surgical condition in the younger age group, which demands emergent surgical treatment [6].

MATERIALS AND METHODS

Study settings: K. R. Hospital, attached to Mysore Medical College and Research Institute, Mysore. The data collection period is January 2011- July 2012. The study was ethically cleared from Institutional Human Ethical Committee (IHEC).

Inclusion criteria

1. All the cases admitted to K.R Hospital with the provisional diagnosis as right iliac fossa mass
2. Age between 10-60 years [7].

Exclusion criteria

1. Female patients with pathologies related to uterus and its adnexa were not included in this study.
2. Similarly mass arising from parietal (anterior abdominal wall), vascular lesions, and distended gall bladder.
3. Any other systemic diseases [8, 9].

Method of collection of data

Patients provisionally diagnosed to have a mass in the right iliac fossa by clinical evaluation were included in this prospective study. A total number of 50 patients were studied. Through direct interview of all the patients, a detailed history and demographic profile were obtained. Subsequent to a clinical examination, patients underwent radiologic evaluation with ultrasonography and computed tomography of the abdomen. Definitive diagnosis in certain patients was made following a histopathological examination of a surgical specimen [10, 11].

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Statistical analysis

The collected data was analyzed and expressed in number and percentage. Microsoft office (2003) version was used to calculate the percentage [12].

RESULTS

In our study, 48% of cases were related to appendicular pathology either in the form of appendicular mass (44%) or appendicular abscess (4%). 16% of cases were ileocaecal tuberculosis, 16% were cases of carcinoma of caecum and 20% of cases were related to other pathology. It was observed that the youngest patient was of age 20 years who presented with appendicular mass and the oldest was 60 years of age admitted with carcinoma of caecum. Appendicular mass was seen more commonly in 3rd decade followed by 2nd, 4th and 6th decade. Appendicular abscess was common in 4th decade. Ileocaecal tuberculosis was common in 4th, followed by 5th and 6th decade. Carcinoma caecum was common in 6th decade. Others were common in 2nd, 5th and followed by 6th decade. Appendicular mass (72%) and appendicular abscess (100%) were predominantly seen in males. Ileocaecal tuberculosis was also more common in males (100%), carcinoma caecum was more common in males (75%) when compared to females (25%) and others was also more common in males (60%) compared to females (40%). Coolie workers from low socioeconomic status were found to have mass in right iliac fossa more often than others.

Table 1: Number and percentage of incidence of mass in right iliac fossa

Diagnosis	Number of Cases	Percentage of cases (%)
Appendicular mass	22	44.0
Appendicular abscess	2	4.0
Ileocaecal tuberculosis	8	16.0
Carcinoma of Caecum	8	16.0
Others	10	20.0
Total	50	100.0

Table 2: Incidence of mass in right iliac fossa in different age groups

Diagnosis	Number of cases	11-20 Years	21-30 Years	31-40 Years	41-50 Years	51-60 Years
Appendicular mass	22	4	10	4	0	4
Appendicular abscess	2	0	0	2	0	0
Ileocaecal tuberculosis	8	0	0	4	2	2
Carcinoma of Caecum	8	0	0	0	0	8
Others	10	4	0	0	4	2
Total	50	8	10	10	6	16

Table 3: Incidence of mass in right iliac fossa in males and females

Diagnosis	Gender			
	Female		Male	
	Number	Percentage (%)	Number	Percentage (%)
Appendicular mass	5	22.72	17	72.27
Appendicular abscess	0	00.00	2	100
Ileocaecal tuberculosis	0	00.00	2	100
Carcinoma of Caecum	2	25.00	6	75.00
Others	4	40.00	6	60.00
Total	11	22.00	39	78.00

Table 4: Incidence of mass in right iliac fossa in different occupational patients

Type of occupation	Number	Percentage (%)
Coolie	12	24.00
House wife	8	16.00
Student	6	12.00
Agriculturist	12	24.00
Labourer	4	08.00
Business	8	16.00
Total	50	100.0

DISCUSSION

In this study, 50 cases were observed for different types of mass in right iliac fossa with relation of age, gender, occupation of the patients. In this study results showed most of the cases have appendicular pathology. Other conditions observed were ileocaecal tuberculosis and carcinoma of caecum. The incidence of appendicular pathology was more common in younger age group. This may be due to food habits and other factors. There are several factors associated with the development of mass in right iliac fossa. High fat and low fiber diet generally has been considered as a risk factor. The protective effect of vegetables and fruits may come not only from their fiber content but also from the content of antioxidative and antiproliferative agents such as isothiocyanates in cruciferous vegetables (e.g. broccoli), which enhance the expression of carcinogen metabolizing enzymes and induce apoptosis in neoplastic cells. Several prospective studies suggested that increased intake of calcium, vitamins and micronutrients may protect from colorectal polyps [13]. Drugs like Aspirin and NSAIDs may interfere with development of colorectal neoplasms by blocking the cyclooxygenase dependent prostaglandin pathway. The targets are the constitutive COX-1, as well as the cytokine inducible COX-2, which have been found at increased expression levels in both polyps and cancers. Bile acids act as co-carcinogens or tumor promoters as seen from both experimental and epidemiological studies. Bile acids can induce hyper proliferation of the intestinal mucosa via a number of intracellular mechanisms. Cholecystectomy, which alters the enterohepatic cycle of bile acids, has been associated with a moderately

increased risk of proximal colon cancers. Smoking and alcohol consumption are also factors associated with an increased risk of colorectal cancer among long-term smokers, though only modestly. Intrinsic risk factors for colorectal cancer include personal and family history, inflammatory bowel disease (a strong risk factor) and other factors like history of ureter colostomy or previous radiation treatment [14,15].

CONCLUSION

From the study observations it was concluded that there was a higher incidence of appendicular mass as compared to appendicular abscess. Development of these masses is more in the age of 20 years and more in males. There is a requirement for multi center studies to further evaluate the relationship between demographic factors and development of mass in right iliac fossa.

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Source of support: Nil

Conflict of interest: None Declared