



Research Paper

Study on Clinical observation in Patients Presenting With Right Iliac Fossa Pain - Acute Appendicitis V/S other Causes

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Received 12 July, 2017; Accepted 14 July, 2017 © The author(s) 2017. Published with open access at www.questjournals.org

ABSTRACT: Patients presenting with pain in the right iliac fossa is common for a surgeon. The causes differ based on the organ of origin. The common conditions include acute appendicitis, right ureteric calculus, mesenteric adenitis or ileocecal tuberculosis and right ovarian cyst. Other causes are appendicular abscess and ascending colon carcinoma. Rare conditions include Non-Hodgkin's lymphoma, caecal carcinoma, amoeboma, lymph node mass, iliopsoas mass, retroperitoneal mass and Crohn's disease. This makes it difficult to diagnose and manage these patients. Hence a prospective study on right iliac fossa masses was conducted. Out of a total of 50 patients, the most common cause was of appendicular origin, mainly appendicitis followed by right ureteric calculus. Pain, fever and leucocytosis were predominantly noted in inflammatory conditions whereas weight loss, anaemia and painless mass were noted in neoplastic causes. Appendicular mass patients were treated conservatively followed by interval appendectomy. Appendicular abscess was drained extra-peritoneally. Right hemi-colectomy was done for carcinoma in the cecum and ascending colon. Tubercular patients with intestinal obstruction also underwent right hemi-colectomy. Intra-venous antibiotics were administered to all infective cases. Tubercular masses were started on anti-tubercular drugs. Carcinoma patients received adjuvant therapy. Crohn's disease and non-specific lymphadenitis were treated medically. Hence our study shows that managing right iliac fossa mass patients can be challenging and requires vigilance.

Keywords: Right iliac fossa pain; Detail History; Clinical Examination; USG/CT Abdomen; Treatment

I. INTRODUCTION

Right iliac fossa pain is quite a common entity in surgical wards. The causes of Right iliac fossa pain have a varied origin and require versatility in their management. This is because the pain may range from a fairly common cause to a rare cause, from a very benign to an aggressively malignant lesion and thus requiring a precise diagnostic work up and further management. Hence there is a need of a detailed study of the various causes of right iliac fossa pain which will help in analyzing the different types of presentation and their management.

Right iliac fossa : The abdomen can be divided into nine arbitrary regions by the subcostal and the transtuberular planes and the two midclavicular planes projected on to the surface of the body. These regions are used in practice for descriptive localization of the position of a mass or the location of the abdominal viscera. The nine regions thus formed are: epigastrium, right and left hypochondrium, central or umbilical, right and left lumbar, hypogastrium or suprapubic, right and left iliac fossa.

The iliac fossa is the internal concavity of the ilium. Iliacus is attached to the upper two-third's of the iliac fossa and is related to its lower third. The iliacus muscle with its investing fascia is the floor of the iliac fossa. Psoas major descends along the pelvic brim, receiving fibres of iliacus muscle laterally. Psoas minor, when present, lies anterior to the psoas major and it ends in a long, flat tendon which is attached to the pectin pubis and the iliopectineal eminence and laterally to the iliac fascia.

Iliac fascia covers psoas and iliacus.^{1,2,3}

Differential diagnosis of pain in right iliac fossa:²

From structures present in right iliac fossa-

- Appendicitis
- Hyperplastic ileocaecal tuberculosis
- Crohn's disease or regional ileitis
- Amoebic typhilitis
- Carcinoma of caecum
- Actinomycosis of caecum and appendix
- Impactions of roundworm's in lower part of ileum
- Lymph node enlargement
- Retroperitoneal sarcoma
- Iliac abscess
- Ureteric calculi
- Mesenteric adenitis

From neighbouring regions-

- Unascended kidney
- Tubo-ovarian mass
- Pyosalpinx
- Cyst and abscess of broad ligament
- Fibroid of the uterus
- Undescended testis developing malignancy

Extra abdominal causes

- Right lower lobe pneumonia
- Miscellaneous

In this work, we shall be focusing on the three other important causes of right iliac fossa pain besides appendicitis; i.e ureteric calculi, mesenteric adenitis and ovarian cysts.

II. AIMS AND OBJECTIVES

- To study the causes of right iliac fossa pain.
- To compare between acute appendicitis and other causes of right iliac fossa pain.

III. MATERIAL AND METHODS

Source of data:

The patients with right iliac fossa pain who will present to the DEPARTMENT OF GENERAL SURGERY, RIMS, RANCHI from NOVEMBER 2013 to OCTOBER 2015.

Method of collection of data:

The study is a clinical observational study. After obtaining a detailed history, complete general physical examination and systemic examination, the patients will be subjected to the relevant investigations.

Inclusion criteria for the study:

All patients presenting with right iliac fossa pain.

Study Tools-

- Detailed history
- General examination
- Per abdominal examination
- Necessary investigations
- Routine Investigations:
- TLC DLC
- Hemoglobin
- Urine-routine examination
- Random blood sugar
- Blood urea, serum creatinine
- Erythrocyte sedimentation rate
- Serum electrolytes
- X-ray erect abdomen
- USG-abdomen
- CT abdomen
- Histopathological examination of the obtained tissue

- Treatment Modality and outcome.

IV. OBSERVATIONS

A Total of 100 patients were selected for the study.

Sex	Frequency	Percentage
Males	49	49
Females	51	51
Total	100	100

Age	Frequency	Percentage
10-19	35	35
20-29	38	38
30-39	19	19
40-49	5	5
50-59	3	3

Diagnosis	Frequency	Percentage
Acute Appendicitis	71	71
Right ureteric calculus	19	19
Mesenteric lymphadenitis	8	8
Right ovarian cyst	2	2

V. DISCUSSION

- A Total of 100 patients were selected for this study of which females were 51 in number and males were 49 in number.
- Out of 100 patients who presented to us with right iliac fossa pain 71 of them were diagnosed to be suffering from acute appendicitis with female : male ratio being 1.21 : 1 (Females – 39, Males – 32) and 81 percentage of the patients were clustered in the age group of 10 -29 years.
- Out of 100 patients with right iliac fossa pain 19 of them were diagnosed to have right ureteric calculus. The male : female ratio was 1.7:1 (Males – 12, Females – 7) with 57 percentage of the patients were between 30 – 50 years.
- 8 out of 100 patients with right iliac fossa pain were found to have mesenteric adenitis, the incidence of which is more in the younger population. The incidence of the disease is slightly more common in males with the male : female ratio being 1.5:1 (males- 5, Females – 3).
- Acute appendicitis is the commonest diagnosis of the patients presenting with acute right iliac fossa pain.
- But a number of intra–pelvic, retroperitoneal , extra–abdominal and other conditions can present as acute right iliac fossa pain.
- The ultimate goal of treating right iliac fossa pain should be to minimize the number of negative explorations and its complications in the form of wound infections, adhesive small bowel obstruction, incisional hernia.

VI. CONCLUSION

Acute appendicitis is by far the most common diagnosis made in patients presenting with right iliac fossa pain.

Right ureteric calculus is the next most common entity encountered in these patients followed by mesenteric adenitis and right ovarian cyst.

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*Dr. Mritunjay Sarawgi. "Study on Clinical observation in Patients Presenting With Right Iliac Fossa Pain - Acute Appendicitis V/S other Causes." Quest Journals Journal of Medical and Dental Science Research 4.5 (2017): 63-66.