



A Prospective Study on Right Iliac Fossa Mass

Authors

Dr Nithya .K^{1*}, Dr Ramesh .R², Dr Ravichandran .K³, Dr Jayaraman .R⁴

¹Post Graduate, Department of General Surgery, Rajah Muthiah Medical College, Chidambaram

²Professor, Department of General Surgery, Rajah Muthiah Medical College, Chidambaram

³Associate Professor, Department of General Surgery, Rajah Muthiah Medical College, Chidambaram

⁴Assistant Professor, Department of General Surgery, Rajah Muthiah Medical College, Chidambaram

*Corresponding Author

Dr Nithya .K

Abstract

Background: *The study was conducted to analyse the clinical presentation of right iliac fossa mass and its prevalence of various causes of RIF mass in patients who visit the department of general surgery. To evaluate age, sex, incidence, common etiological factors of RIF mass in patients. To evaluate the incidence of etiopathology and types of clinical presentation of RIF mass. To study the differential diagnosis, complications, morbidity, mortality and surgical management of the right iliac fossa that are seen in our hospital.*

Methods: *We conducted this study in the department of General Surgery, Rajah Muthiah Medical College from October 2018 to September 2020. 50 patients diagnosed with right iliac fossa mass were studied in terms of clinical presentation and evaluation with various other studies, the results obtained were correlated.*

Results: *Almost all patients presented with pain abdomen which is the most common presentation followed by right iliac fossa tenderness in 35 patients. Out of 50 patients fever was present in 30 patients. Vomiting present in 25 patients and weight loss in 15 patients. Appendicular mass was the common clinical presentation that is 20 out of 50 patients. Appendicular abscess present in 9 out of 50 in study group. Ileocaecal tuberculosis was present in 9 patients. Carcinoma caecum present in 10 patients followed by psoas abscess in 2 patients. Almost 60% of appendicular mass underwent medical management. All appendicular abscess underwent extra peritoneal drainage.*

Keywords: *Right iliac fossa mass, Appendicular mass, Appendicular abscess, carcinoma caecum, ileocaecal tuberculosis, psoas abscess.*

Introduction

Mass in the right iliac fossa is a common clinical condition that a surgeon faces in ones day to day practice. The commonest lump in the abdomen occurs in right iliac fossa. Structures that are present are appendix, caecum, terminal ileum, lymph node, iliac arteries, iliopsoas sheath and iliac bone. The organs when they become

pathological can present as mass in the right iliac fossa. Some neighboring organs can migrate into the right iliac fossa and present as a mass. They are kidney, gall bladder, uterus, undecended testis and pelvic abscess. A clinical diagnosis is often difficult in obesity and abdominal guarding.

Methods

The present study was conducted in the department of General Surgery, Rajah Muthiah Medical College from October 2018 to September 2020. 50 Patients diagnosed and admitted with right iliac fossa mass and pain with consent were all selected for the study. Paediatric age group less than 13 yrs, RIF mass in females due to pathology related to ovary, uterus and appendages, bony swellings, all hernias, parietal swellings were excluded. After thorough history taking as per proforma, physical examination and local examination of abdomen, per rectal examination, sigmoidoscopy/colonoscopy was done. Took Routine blood investigations,

radiological investigations, diagnostic laparoscopy, colonoscopy for selected cases were done. Cases posted for sugary after anaemia corrections and post-operative follow up given. Patients who undertook medical management were also kept under follow up.

Results

Among 50 patients 20 patients were appendicular mass, 9 appendicular abscess, 9 ileocaecal tuberculosis, 20 carcinoma caecum, 2 psoas abscess. Almost all patients presented with pain, out of 50 cases mass could be seen in 11 patients, 39 patients mass appreciated by palpation.

Table 1: Incidence of various pathology

S.No.	Diagnosis	No. of cases	Percentage (%)
1	Appendicular mass	20	40
2	Carcinoma caecum	10	20
3	Ileocaecal Tuberculosis	9	18
4	Appendicular Abscess	9	18
5	Psoas Abscess	2	4

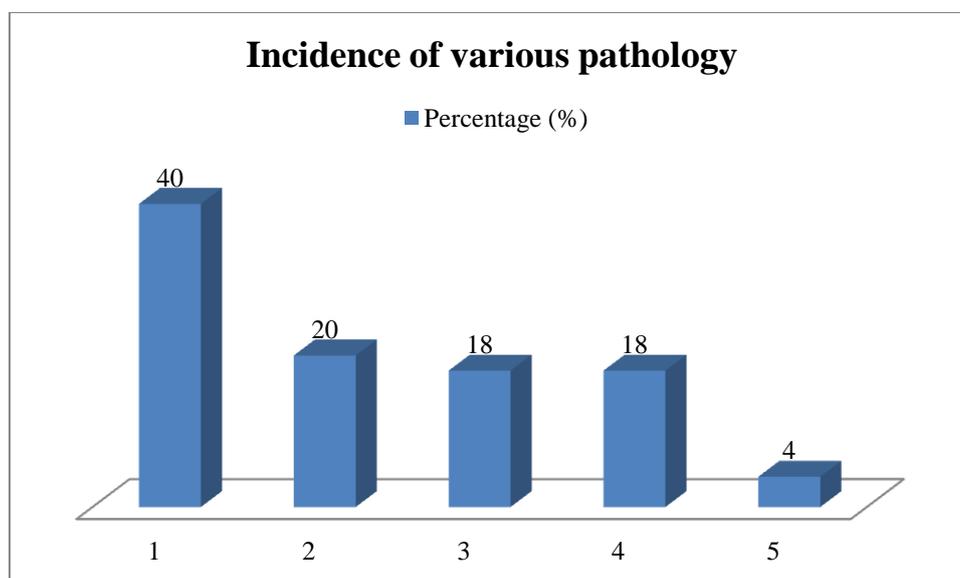


Table 2: Age Incidence

S. No.	Diagnosis	15 -20 yrs	21-30 yrs	31-40 yrs	41-50 yrs	51-60 yrs	>60 yrs
1	Appendicular mass	6	2	7	3	2	0
2	Carcinoma caecum	0	0	1	1	3	5
3	Ileocaecal Tuberculosis	0	3	2	1	2	1
4	Appendicular Abscess	3	2	2	2	0	0
5	Psoas Abscess	0	0	0	1	1	0

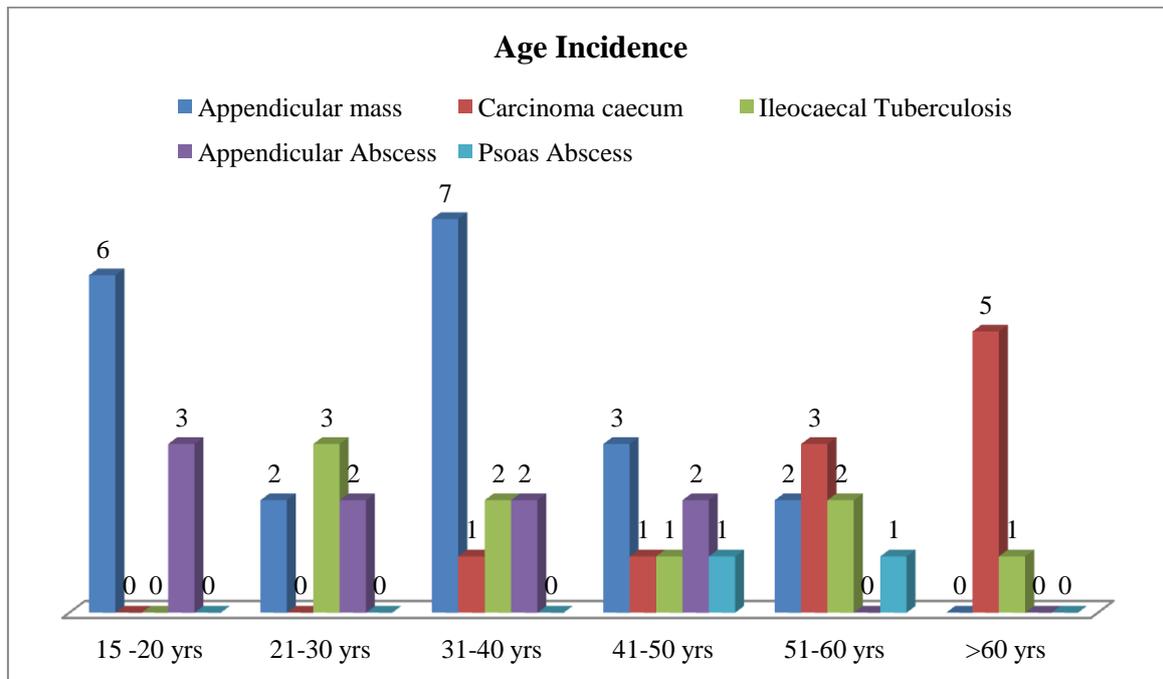


Table 3: Sex Incidence

S. No	Diagnosis	Male		Female	
		No.	%	No.	%
1	Appendicular mass	14	28	6	12
2	Carcinoma caecum	7	14	3	6
3	Ileocaecal Tuberculosis	6	12	3	6
4	Appendicular Abscess	5	10	4	8
5	Psoas Abscess	0	0	2	4

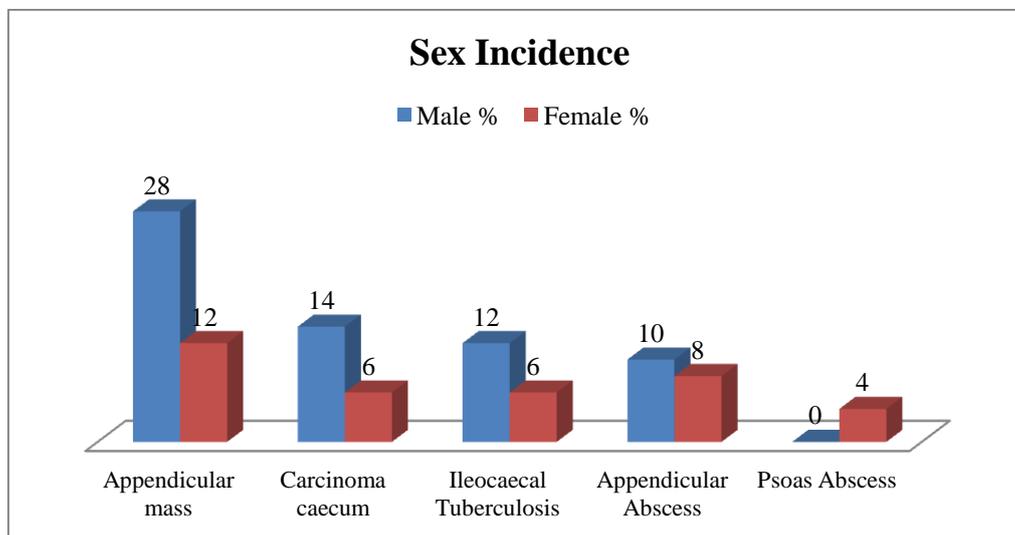


Table 4: Duration of Symptoms

S.No	Diagnosis	No. of Cases	Duration			
			2-30 Days	1-3 Months	3-6 Months	>6 Months
1	Appendicular mass	20	20	0	0	0
2	Carcinoma caecum	10	0	3	6	1
3	Ileocaecal Tuberculosis	9	2	2	2	3
4	Appendicular Abscess	9	9	0	0	0
5	Psoas Abscess	2	1	1	0	0

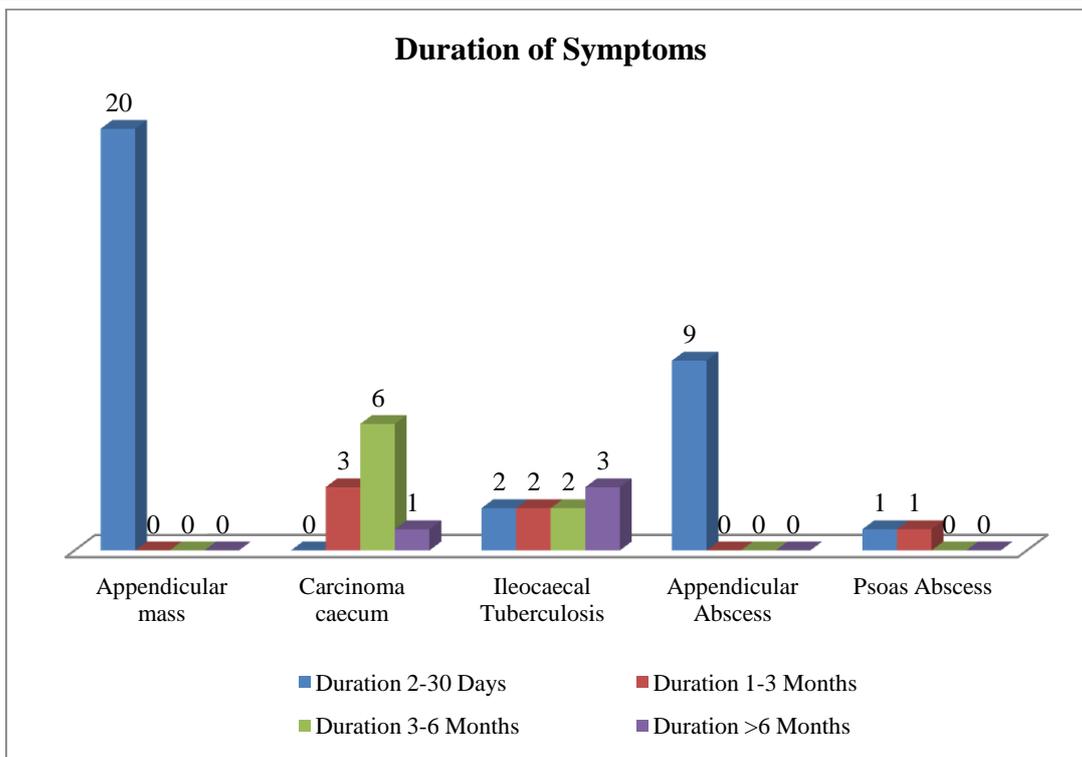


Table 5: Clinical Presentations

S.No.	Conditions	Number of patients
1.	Pain	50
2.	Fever	30
3.	Tenderness	35
4.	Vomiting	25
5.	Weight loss	15

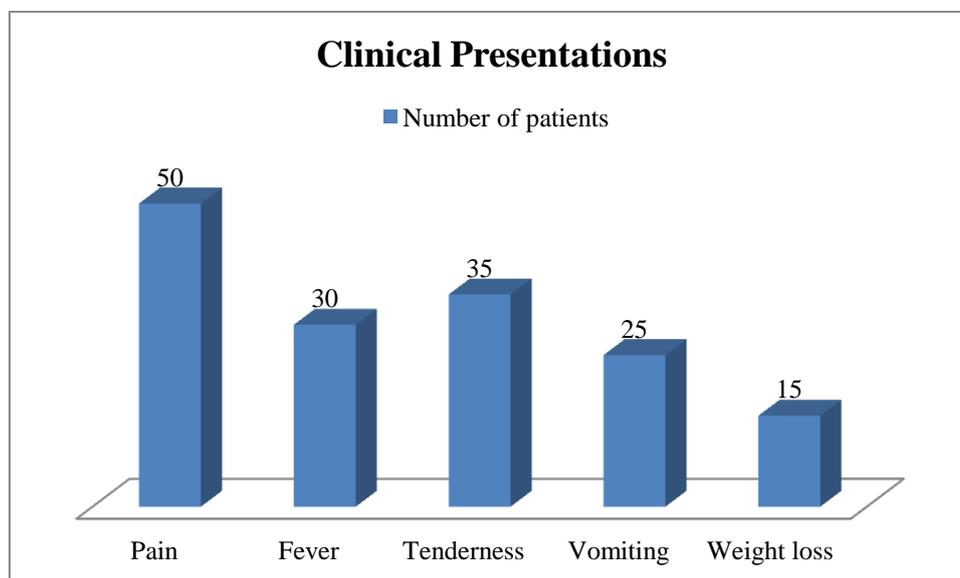


Table 6: Haematological

S.No.	Total WBC Count	Appendicular pathology	Illeocaeca tuberculosis
1.	>10,000 cells/cu.mm	20	7
2.	<10,000 cells/cu.mm	9	2

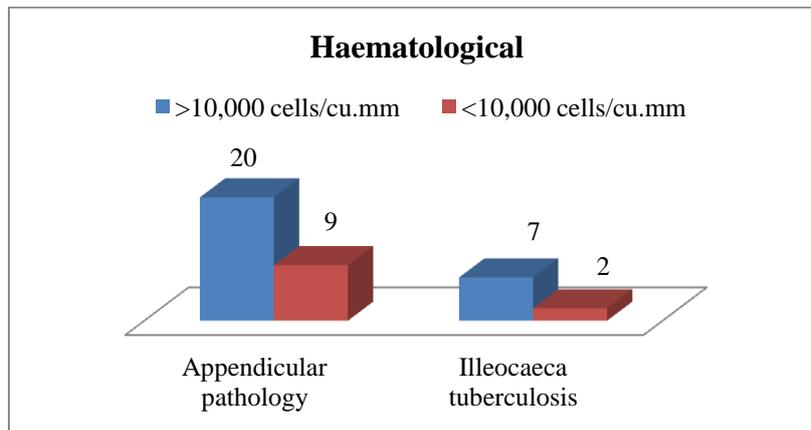


Table 7: ESR

S.No.	Diagnosis	No. of cases	ESR <20	ESR 21-40	ESR >40
1	Appendicular mass	20	4	1	1
2	Appendicular Abscess	9	3	3	1
3	Carcinoma caecum	10	2	1	2
4	Ileocaecal Tuberculosis	9	1	1	4
5	Psoas Abscess	2	1	1	0

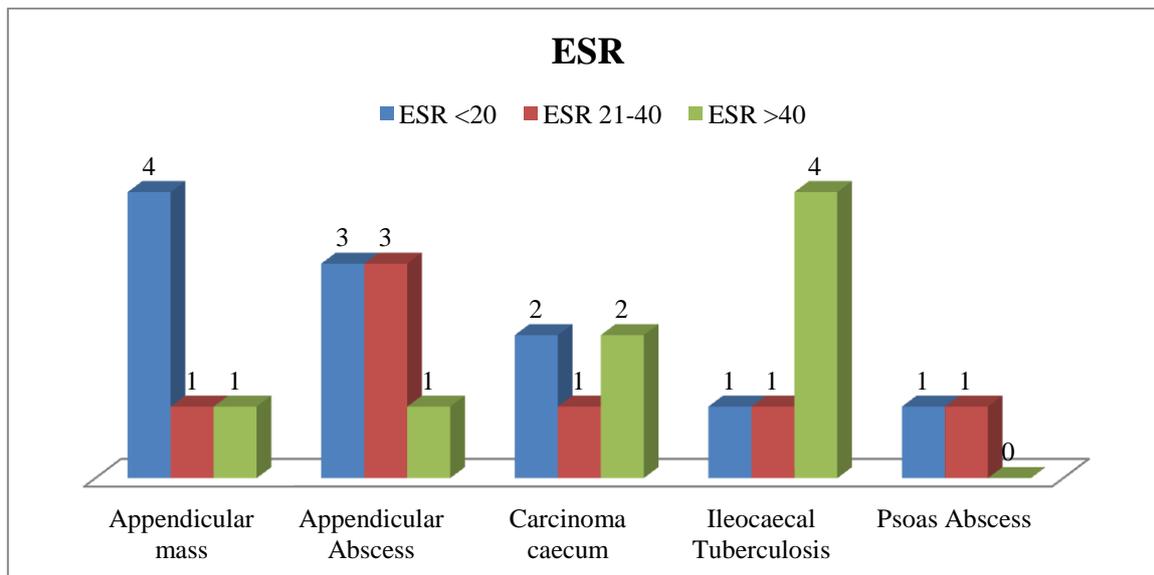


Table 8: Mantoux test

S. No.	Diagnosis	No. of cases	Positive	Negative
1	Appendicular mass	20	3	0
2	Appendicular Abscess	9	1	8
3	Carcinoma caecum	10	0	10
4	Ileocaecal Tuberculosis	9	3	0
5	Psoas Abscess	2	2	0

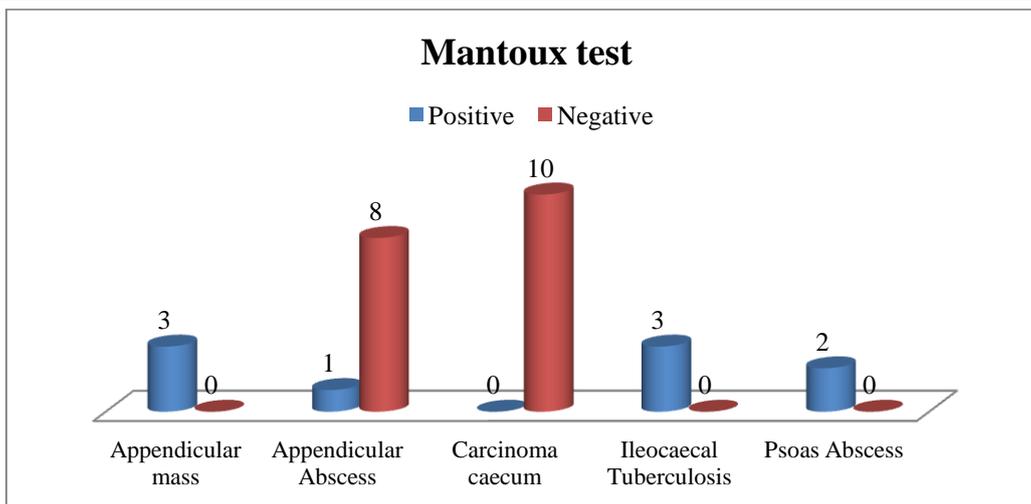


Table 9: Radiology

S. No.	Barium study	Total No. of patients
1.	Definitive diagnosis	12
2.	Non-specific findings	7

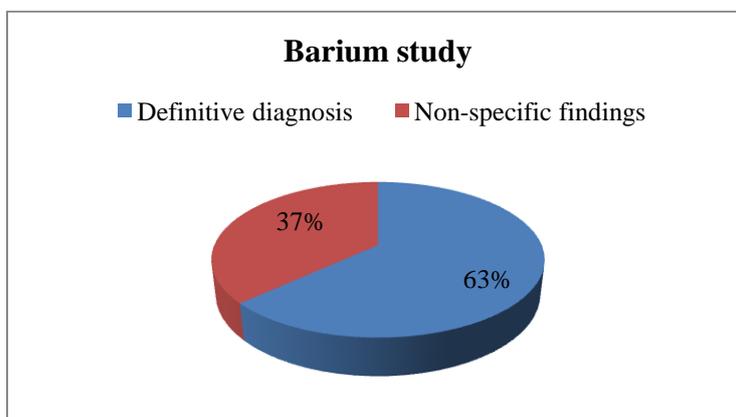


Table 10: Laprascopy

S. No.	Laprascopy	No. of Patients
1.	Male	1
2.	Female	2

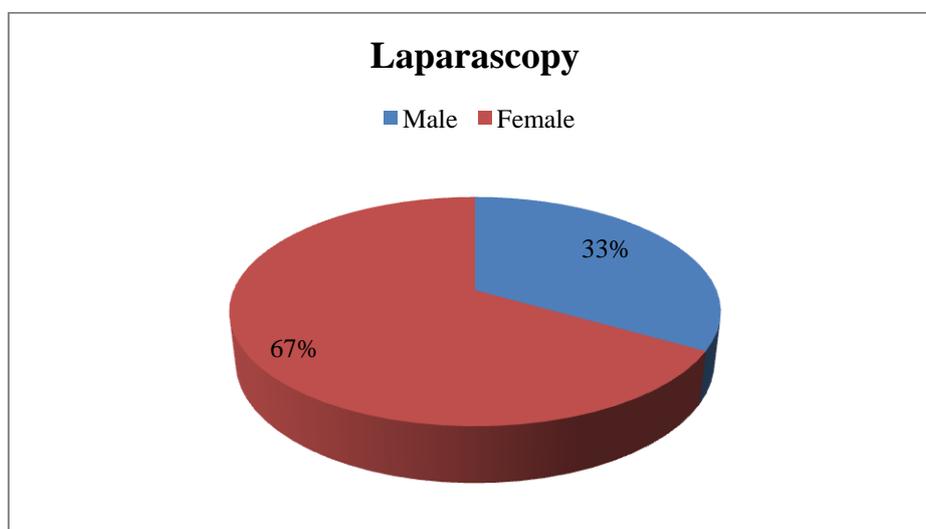


Table 11: Mode of Management

S. No.	Diagnosis	No. of cases	Medical		Surgical	
			No.	%	No.	%
1.	Appendicular mass	20	12	24	8	16
2.	Carcinoma caecum	10	0	0	10	20
3.	Ileocaecal Tuberculosis	9	5	10	4	8
4.	Appendicular Abscess	9	0	0	9	18
5.	Psoas Abscess	2	0	0	2	4

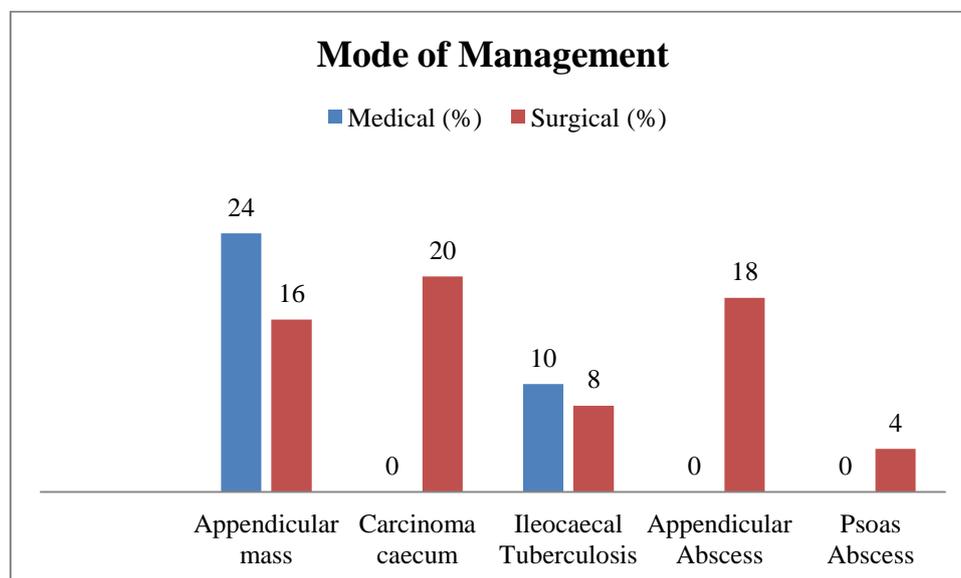


Table 12: Types of Surgery

S. No.	Diagnosis	Oschner Sherren Regimen with interval appendicectomy	Open emerging appendicectomy	Extra peritonated drainage with interval appendicectomy	ATT	Rt. Hemicolectomy with ATT	RtHemicolectomy	Extra peritonated drainage only
1.	Appendicular mass	12	8	0	0	0	0	0
2.	Appendicular Abscess	0	0	9	0	0	0	0
3.	Carcinoma caecum	0	0	0	0	0	10	0
4.	Ileocaecal Tuberculosis	0	0	0	5	4	0	0
5.	Psoas Abscess	0	0	0	0	0	0	2

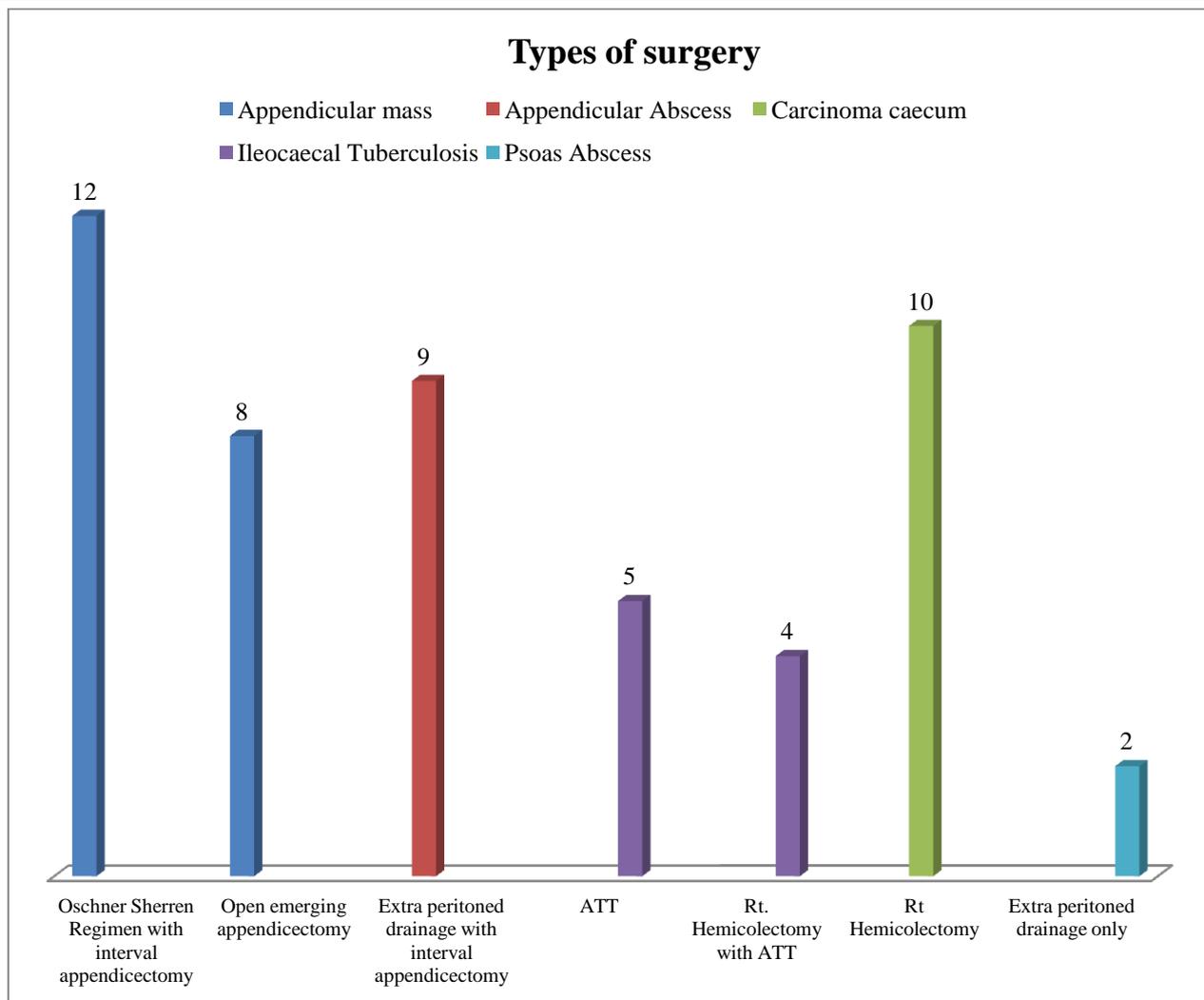
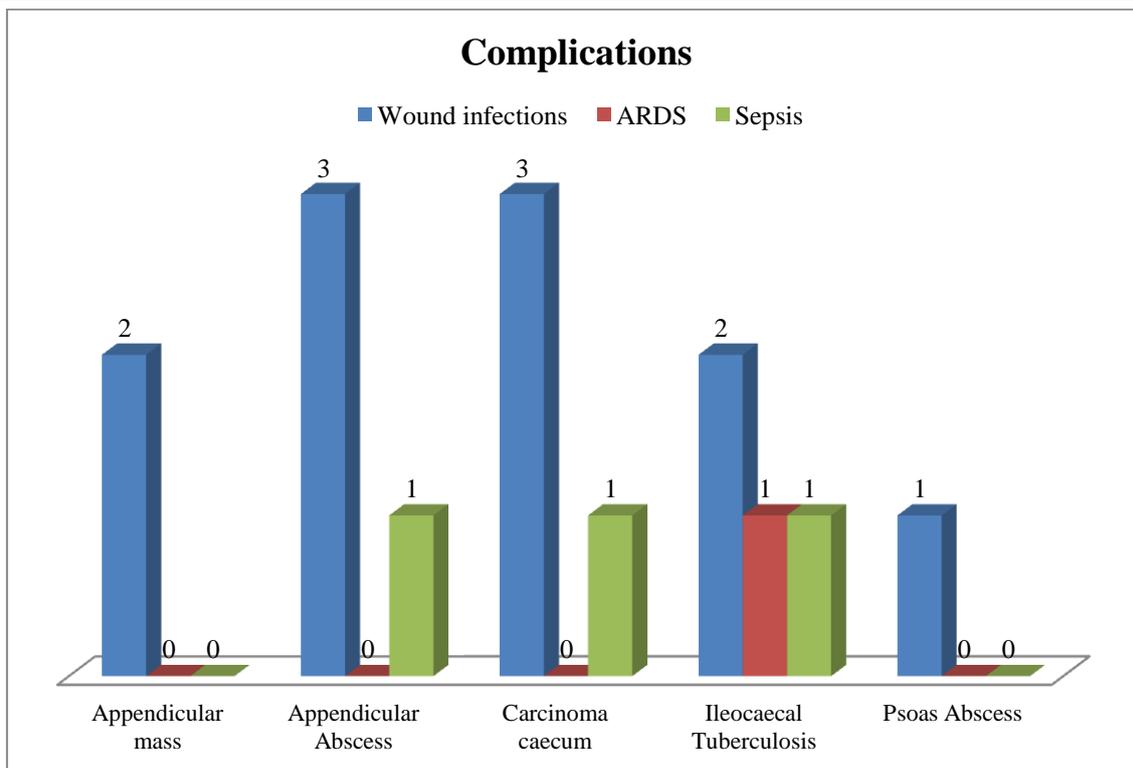


Table 13: Complications

S. No.	Diagnosis	No. of Cases	Wound infections	ARDS	Sepsis
1.	Appendicular mass	20	2	0	0
2.	Appendicular Abscess	9	3	0	1
3.	Carcinoma caecum	9	3	0	1
4.	Ileocaecal Tuberculosis	10	2	1	1
5.	Psoas Abscess	2	1	0	0



Discussion

Right iliac fossa mass is a common presentation in middle aged males now with increasing trend in younger adults. Male predominance is seen in appendicular pathology, carcinoma caecum but there isn't much difference in ileocaecal tuberculosis, psoas abscess. Most common age presentation in appendicular mass was in 3rd decade, abscess 1st decade, CA caecum in 6th decade, ileo caecal tb in 2nd decade, all appendicular pathology were noticed within 1month of duration, followed by caecal carcinoma in 3 to 6 months leucocytosis was seen in 20 out of 29 cases of appendicular pathology, and 7 out of 9 in ileocaecal tuberculosis. ESR was raised in 26 out of 50 cases, mantoux positive seen in 9 out of 50 cases with increasing trend of ATT incidence of tuberculosis is fallen according to Liuky et al and Yu et al pyogenic origin of psoas abscess is well known. In goligher and smiddy sex incidence of carcinoma caecum was roughly equal.

Out of 20 cases 12 underwent oschner sherren regimen followed by interval appendicectomy, all 9 appendicular abscess extra peritoneal drainage was done. A study by Garg P et al says immediate surgery is preferred in a case of appendicular mass

for avoiding misdiagnosis, easy follow up, recurrence, shorter stay, reduce expense for the patient. In a study zarbamei concludes appendicectomy with abscess drainage is not only safe but also reduces morbidity, reducing stay, if appendix found free in abscess cavity. Out of 9 tb cases 4 had ATT with right hemicolectomy rest only on ATT. All cases of CA caecum right hemicolectomy was done. All psoas abscess cases extra-peritoneal drainage done.

Conclusion

Appendicular pathology continues to be the most common causes for the right iliac fossa mass. Early appendicular mass need not be conservatively treated, as we had not found increase in morbidity or hospital stay following immediate surgery.

Surgical intervention in appendicular abscess, appendicectomy and drainage can be attempted. In ileocaecal tuberculosis pulmonary lesion is an uncommon presentation, present with signs of appendicitis even without many symptoms. Carcinoma caecum may associate with ileocaecal tuberculosis. Psoas abscess can also be pyogenic in origin Laprascopy is of diagnostic value and is

useful in avoiding unnecessary laprotomies.

Most common presentation in right iliac fossa mass is pain, Sign is tenderness. Prevalence is in low socio-economic status. Early diagnosis and intervention reduces morbidity and mortality.

Funding: No funding sources

Conflict of Interest: We have no conflict of interest to declare.

References

1. Patel J.P., Farthouat P, Thowad H, Flandrin P, Ann Chair 1998;52(4): 329-30.
2. Moussaoui A, Rabii R, Hafiani M, Rais H. Ann Urol (Paris) 1998; 32(1):29-31.
3. Rosati C, Huang SN, Ali J. Dept of Surg. University of Toronto. Can. J. Surg 1991 Aug;34(4):381-4.
4. Bailey & Love's Short practice of surgery.
5. Symmonds DA and Vickery AI. Mucinbus carcinoma of colon abd rectum. Cancer 37:1891,1976.
6. Duke's C.E; The classification of cancer of rectum. J. Pathol. Bacteriol. 50:527,1940.
7. Line Weaver W, Staging of colon cancer contemp. Surg 25:19,1984.
8. American joint Committee on cancer. Manual for staging of cancer: colon and rectum. Philadelphia J.B. Lippincott company 1988;75-80.
9. Prokash A, Ulcero – constrictive tuberculous of the bowel. Int. Surg. 1978; 63:23-9.
10. Hammandi WJ, Thamer NA. Tuberculous of the bowel in Iraq. A study of 86 cases. Dis, Colon rectum 1965;8:158-64.
11. Venables GS, Rana PSJB. Colonic Tuberculous, Postgrad Med.J. 1979, 55:276-8.
12. Sakai Y. Coloscopic diagnosis of intestinal Tuberculosis. Semin Roentgenol 1979;14: 283-94.
13. Thoeni RF, Margulin AR. Gasatointestinal Tuberculosis Master Med Pol 1979;14:283-94.
14. Carrera GF, Young S, Lewicki AM. Intestinal Tuberculosis. Gastrointest. Radio. 1976;1:147-55.
15. Paustian FF, Bocken HL. So called primar Ulcero hypertropic ileocaecal tuberculosis. Am J Med. 195;27:509-18.
16. Howell JS, Knapton PJ, Illeocaecal Tuberculosis. Gut 1964;5:524-9.
17. Tandon HD, Prokash A. Pathology of intestinal tuberculosis and its differentiation from Crohn's disease. Gut. 1972;13:260-9.
18. Lewis EA, Kolawole TM, Tuberculousileocolitis in Ibadan. A clinic Radiological review. Gut. 1972;13;646-53.
19. Brombart et al. Radiological difference between ileocaecal tuberculosis and Crohn's disease. Am J Dig. Dis:1961;6:589-622.
20. Anscombe AR, Keddie NC, schofield PF, Caecal tuberculosis. Gut. 1967;337-43.
21. Gershon – Cohen J, Kremens V. X-ray studies of the ileocaecal valve in ileocaecal tuberculosis. Radiology 1954;62:251-4.
22. Rajwanshi et al. FNAC in diagnosis of tuberculosis. Diagnosis by FNAC. Acta Cytol. 1993;37:673-8.
23. Radhika et al. abdominal tuberculosis. Diagnosis by FNAC. Acta Cytol. 1993; 37:673-8.
24. Kedar et al. Sonographic findings in gastrointestinal and peritoneal tuberculosis. Clin Radiol. 1994;49:24-9.
25. Kinkhabawala M, Dziadiw R. Arteriographic manifestation of tuberculosis of the splenic flexure and the stomach. Br.J.Rad.1971;44:384-7.