



## CLINICOPATHOLOGICAL EVALUATION AND MANAGEMENT OF RIGHT ILIAC FOSSA MASSES AT A TERTIARY HOSPITAL IN NORTH INDIA

**Dr. Insha Wali\***

PG Student, Department of General Surgery, School of Medical Sciences & Research, Sharda University. \*Corresponding Author.

**Dr. Vijay Kumar**

Associate Professor, Department of General Surgery, School of Medical Sciences & Research, Sharda University

**Dr Ashok Kumar Gupta**

Professor, Department of General Surgery, School of Medical Sciences & Research, Sharda University.

### ABSTRACT

**Background:** Right iliac fossa (RIF) masses present a significant diagnostic challenge due to their varied etiologies. This study aims to evaluate the clinicopathological spectrum of RIF masses at a tertiary care hospital. **Methods:** This was a prospective observational study of 52 patients presenting with RIF masses over 18 months. Data on demographics, clinical features, diagnostic modalities, treatment, and histopathological outcomes were analyzed. **Results:** The most common presentation was abdominal pain (96.15%), followed by fever (51.92%). Appendicular lump (40.38%) was the predominant diagnosis, followed by appendicular abscess (17.31%), carcinoma caecum (13.46%), and ileocecal tuberculosis (13.46%). Management varied from conservative therapy to surgical interventions including appendectomy, right hemicolectomy, and stricturoplasty. Histopathology confirmed acute appendicitis (32.69%) and chronic appendicitis (25%) as common findings. Surgical Site Infection (SSI) was the most frequent postoperative complication. **Conclusion:** Accurate diagnosis and tailored management of RIF masses are essential for reducing morbidity and guiding appropriate treatment strategies.

**KEYWORDS :** Right Iliac Fossa Mass, Appendicular Lump, Carcinoma Caecum, Ileocecal Tuberculosis, Surgical Outcomes

### INTRODUCTION

Masses in the right iliac fossa (RIF) represent a diagnostic dilemma due to the wide range of underlying etiologies, ranging from benign appendicular lumps to malignant neoplasms. Despite advancements in diagnostic imaging and surgical techniques, clinical judgment and anatomical understanding remain crucial for timely diagnosis and management. This study was conducted to evaluate the clinicopathological spectrum of RIF masses and determine the most effective management strategies at a tertiary care hospital.

### MATERIALS AND METHODS

This was a prospective observational study conducted in the Department of General Surgery at a tertiary care hospital over a period of 18 months. A total of 52 patients presenting with a mass in the right iliac fossa were included. Inclusion criteria were all age groups and both sexes presenting with palpable or radiologically identified RIF masses. Detailed demographic, clinical, radiological, laboratory, intraoperative, and histopathological data were recorded. Patients were managed either conservatively or surgically based on diagnosis. Follow-up was performed to monitor complications and outcomes.

### RESULTS

The majority of patients were male (61.54%) and in the 35-44 years age group. Right lower abdominal pain was the most common symptom (96.15%), followed by fever (51.92%). The most frequent diagnosis was appendicular lump (40.38%), followed by appendicular abscess (17.31%), carcinoma caecum (13.46%), and ileocecal tuberculosis (13.46%). 13 cases were managed conservatively, while the rest underwent surgical intervention, including appendectomy, hemicolectomy, stricturoplasty, and drainage procedures. Histopathological analysis revealed acute appendicitis in 32.69% and chronic appendicitis in 25% of cases. Surgical site infections were the most common postoperative complication. Two mortalities were reported during the study period.

**Table – 1 Distribution Of Clinical Symptoms Among The Study Participants (N=52)**

| Sl. No | Clinical symptoms          | No of Patients | %      |
|--------|----------------------------|----------------|--------|
| 1      | Right lower abdominal Pain | 50             | 96.15% |
| 2      | Anorexia                   | 20             | 38.46% |
| 3      | Weight loss                | 12             | 23.08% |
| 4      | Fever                      | 27             | 51.92% |
| 5      | Vomiting                   | 16             | 30.77% |
| 6      | Diarrhea                   | 5              | 9.62%  |
| 7      | Burning Micturition        | 1              | 1.92%  |
| 8      | Abdominal Distension       | 14             | 26.92% |

**Table-2 Distribution Of Radiological Diagnosis Among The Study Participants (N=52)**

| USG                           | No of Patients | %      |
|-------------------------------|----------------|--------|
| Appendicular mass             | 21             | 40.38% |
| Appendicular Abscess          | 9              | 17.31% |
| Retroperitoneal Abscess       | 5              | 9.62%  |
| Ileocecal thickening          | 7              | 13.46% |
| Ileocecal mass                | 7              | 13.46% |
| Others (Ectopic Right Kidney) | 3              | 5.77%  |

**Table-3 Distribution Of Surgical Treatment In Study Participants (n=52)**

| Sl no | Management                                           | Frequency | %      |
|-------|------------------------------------------------------|-----------|--------|
| 1     | OS regimen with open interval appendicectomy         | 8         | 20.51% |
| 2     | OS regimen with laparoscopic interval appendicectomy | 4         | 10.26% |
| 3     | Emergency appendectomy                               | 7         | 13.46% |
| 4     | Antibiotics/Drainage +with Interval appendectomy     | 4         | 10.26% |
| 5     | Right hemicolectomy                                  | 4         | 10.26% |
| 6     | Limited Resection                                    | 4         | 10.26% |
| 7     | Stricteroplasty                                      | 1         | 2.56%  |
| 8     | Exploratory laprotomy                                | 2         | 3.80%  |
| 9     | Pigtail drainage with antibiotics                    | 3         | 5.76%  |
| 10    | Pigtail drainage f/b ATT                             | 2         | 3.80%  |

**Table -4 Distribution Of Histopathological Diagnosis Among The Study Participants (N=52)**

| Histopathological Findings                             | No of Pt. | %      |
|--------------------------------------------------------|-----------|--------|
| Acute appendicitis                                     | 17        | 32.69% |
| Chronic appendicitis                                   | 13        | 25.00% |
| Adenocarcinoma cecum                                   | 4         | 7.69%  |
| Necrotic pus in abscess cavity                         | 3         | 5.77%  |
| Epithelioid granuloma with langhans giant cells        | 2         | 3.85%  |
| Langhans giant cells in cecum                          | 2         | 3.85%  |
| Casating granulomatous lesion                          | 1         | 1.92%  |
| Epithelioid granuloma in mucosa and submucosa          | 1         | 1.92%  |
| Epithelioid granuloma in mucosa and submucosa          | 1         | 1.92%  |
| Lymphotic infiltration in submucosa and lamina propria | 1         | 1.92%  |
| Mucinous adenocarcinoma of cecum                       | 1         | 1.92%  |
| Signet ring cell carcinoma cecum                       | 1         | 1.92%  |

### DISCUSSION

The predominance of appendicular masses as the leading cause of RIF

masses in this study aligns with previous studies conducted by Mahesh Kedar (2022) and Anita Samraj (2017). The frequency of ileocecal tuberculosis remains significant in developing regions and should be considered in differential diagnosis. Conservative management was effective in selected cases of appendicular mass, reaffirming the safety and efficacy of Ochsner-Sherren regimen. Histopathological analysis was crucial in differentiating malignancies and confirming TB. Comparative literature supports interval appendectomy in cases of conservatively managed appendicular lumps. Postoperative SSI remains a concern, underlining the need for strict aseptic measures.

## CONCLUSION

Masses in the right iliac fossa represent a heterogeneous group of conditions requiring individualized diagnosis and treatment. Appendicular pathology remains the leading cause, followed by ileocecal TB and carcinoma caecum. Conservative treatment followed by interval appendectomy is safe in selected cases. Timely surgical intervention and histopathological confirmation are key to improving outcomes and reducing complications.

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