

## Case Report

# Peritoneal inclusion cyst resulting in intestinal obstruction: rare case report

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### ABSTRACT

Peritoneal inclusion cyst (PIC) is a rare cause of intestinal obstruction. This patient presented to us with all signs and symptoms of intestinal obstruction. On emergency laparotomy it appeared like a malignant lesion, which was resected and anastomosis done. HPE report proved it to be multi loculated peritoneal inclusion cyst. This case is presented for its rarity in itself, presenting as intestinal obstruction, in a male, that too without previous history of any surgery.

**Keywords:** Peritoneal inclusion cyst, Intestinal obstruction, Pelvic inflammatory disease, Benign cystic mesothelioma, Multi locular peritoneal inclusion cyst

### INTRODUCTION

Peritoneal inclusion cyst is a benign condition. Most often seen in females of reproductive age group.<sup>1-3</sup> Most important causative factor being pelvic inflammatory disease.<sup>4</sup> Other causes being prior abdominal surgery.<sup>4</sup> It can be mistaken for a malignant lesion at surgery.

### CASE REPORT

73 year old male presented to us with abdominal pain for 3 days, abdominal distension 2 days, bilious vomiting 3 episodes, since 2 days, constipation since 2 days, was passing flatus. No significant past or family history.

On examination Vitals were found to be stable, Abdomen was distended, Visible intestinal peristalsis present. On palpation abdomen was soft. Diffuse tenderness present, more in right iliac fossa (RIF). A vague Palpable mass in RIF of size 5×5 cm not moving with respiration was noted, it had firm consistency. Bowel sound was sluggish. On per rectal examination it was empty, other systemic examination was within normal limits. On

investigating the patient, X-ray abdomen erect showed dilated bowel loops with multiple air fluid levels. Ultrasonogram showed distended bowel loops, mass lesion in RIF measuring 4×3 cm which suggested possibility of ileo caecal TB or caecal growth causing sub-acute intestinal obstruction. CT abdomen and pelvis was done which also gave a similar report. With these findings Patient was taken up for emergency explorative laparotomy. Intra operatively grossly dilated small bowel was seen multiple cystic lesions along mesenteric border of distal ileum for about 15 cm, appearing like a malignant lesion was noted, with adhesions between the intestines leading to obstruction (Figure 1). We decided to proceed with resection of the malignant appearing lesion of ileum and end to end anastomosis was done. Specimen was sent for Histopathological examination (HPE) which gave us a diagnosis of multi locular peritoneal inclusion cyst. Post operatively Patient was started on oral on 5th day, flank drains were removed on 6th day and Sutures were removed on 10th day and patient was discharged.



**Figure 1: The lesion intraoperatively.**

### **Peritoneal inclusion cyst-discussion**

Mennemeyer and Smith were the first to describe PIC in 1979.<sup>5</sup> There are many terminologies used for this condition. Namely; benign cystic mesothelioma, peritoneal/mesenteric cysts, benign papillary peritoneal cystosis, post-operative peritoneal cysts, inflammatory cyst of peritoneum. It is a benign condition, It typically occurs in the peritoneal cavity of women in the reproductive age group. May rarely occur in men. Most of the patients will have history of prior abdominal surgery, PID, endometriosis.

### **Causes**

Most important cause is some sort of inflammation. Hormonal basis has been suggested by their regression with the use of long acting GnRH agonists or Tamoxifen.

### **Pathophysiology**

The most likely mechanism is injury to peritoneum due to PID or post operative adhesion, which reduces the absorptive capacity of peritoneum and peritoneal fluid gradually accumulates leading to the formation of cysts.

Approximately 150 cases of PIC with various presentations have been reported. This disease is quite rare with an incidence of 0.15/100000 annually. Male: female ratio-1:5, 70% of the patients had history of prior insult to the peritoneum.<sup>6,7</sup>

### **Differential diagnosis**

It is most often confused with multi locular lymphangiomas. The latter occur in children and are usually extrapelvic localized to the mesentery of small intestine. Multicystic adenomatoid tumor, malignant mesothelioma.

### **Treatment**

Observation, Hormonal management, Image guided aspiration, Image guided sclerotherapy, Surgical resection-50 % recurrence has been noted following resection.<sup>7</sup>

### **CONCLUSION**

PIC is a benign condition, most common in middle aged females, most often present as multi loculated cysts in the pelvis. Prior insult to peritoneum present in most of the cases. May present with abdominal pain, distention or mass. Observation is enough for most of the cases. Surgery needed for presentations with complication in exceptional cases only.<sup>8</sup>

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