

# Postmyomectomy gossypiboma: A surgical mishap

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Gossypibomas or retained surgical foreign bodies, although uncommon causes of abdominal lumps, still remain a major cause of concern for surgeons worldwide. Their early identification and treatment are mandatory to prevent morbidity as well as mortality. The major diagnostic dilemma still remains in the vagueness of presentation of this callous entity. We present a similar situation in which a 30-year-old lady, previously operated for a uterine myoma, reported to us with an intra-abdominal lump which on exploration turned out to be a surgical sponge.

**Keywords:** Gossypiboma, recurrent abdominal pain, surgical sponge

## INTRODUCTION

Gossypiboma is a retained foreign body, mostly a surgical sponge, in any of the body cavities, mostly abdominal. The word 'gossypiboma' is derived from the Latin word 'gossypium' for cotton and Swahili word 'boma' for place of concealment.<sup>[1]</sup> The incidence rate of this condition varies widely from 1 in 100–3000 for all surgical interventions and 1 in 1000–1500 for intra-abdominal surgeries.<sup>[2,3]</sup> It is a major diagnostic dilemma and can lead to a loss of chance of survival or recovery. We present a 30-year-old lady, previously operated for a uterine myoma with an intra-abdominal lump which on exploration turned out to be a surgical sponge.

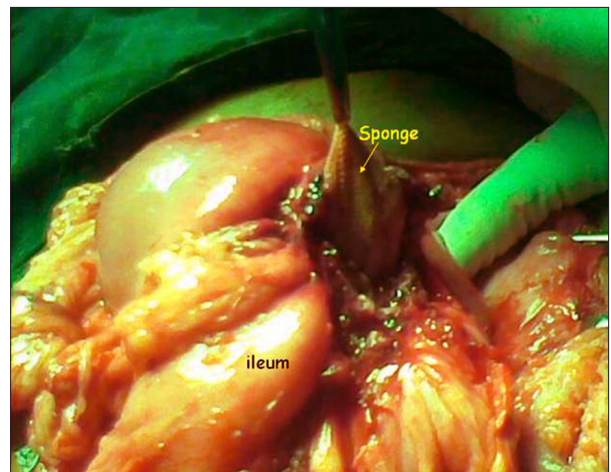
## CASE REPORT

A 30-year-old lady was admitted, with a history of a lump and recurrent pain in the abdomen. A history of surgery for a uterine myoma, 3 months ago, at a private nursing home was noted. On examination, an intraperitoneal lump was palpable, occupying the umbilical, right lumbar, and right iliac quadrants. Ultrasonography detected an oval mass of size 11 × 10 × 9 cm<sup>3</sup> with a hypoechoic rim. Noncontrast computed tomography revealed a large mass lesion with a thick capsule and spongiform pattern of gas bubbles within it displacing


adjacent bowel loops. Exploration revealed a surgical sponge of size 20 × 14 cm<sup>2</sup> lying in the peritoneal cavity compressing the jejunioileal area and its mesentery [Figure 1]. It was removed and as the involved gut was friable and edematous, 3 ft of the jejunioileal portion of the gut was resected and re-anastomosis done 10 cm proximal to the ileocaecal junction. Recovery was uneventful, and the patient was discharged on the seventh postoperative day.

## DISCUSSION

Gossypibomas or retained foreign bodies following surgical interventions not only possess diagnostic and therapeutic dilemma but also have medicolegal implications. Reports of this surgical mishap are only the tip of an iceberg due to its medicolegal consequences and widespread criticisms.<sup>[4]</sup> Although the actual incidence is unknown, it has been reported as 1 in 100–3000 for all surgical interventions and 1 in 1000–1500 for abdominal



**Figure 1:** Intraoperative photograph, with the gossypiboma extracted from the friable jejunioileal segment

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surgeries.<sup>[2,3]</sup> It is nine times more likely after an emergency operation, and four times common when an unexpected change is undertaken in any surgical procedure.<sup>[5]</sup> It is commonly seen in obese patients.<sup>[4,6]</sup>

Gossypibomas may have an acute or a chronic clinical presentation. Acute presentations follow a septic course with an abscess or a generalized granuloma formation or peritonitis. The symptoms of chronic gossypibomas are nonspecific and may present as obstruction, adhesions, or fistula formation.<sup>[7]</sup> The longer is its retention time, the higher is the fistulization risk.<sup>[8]</sup> It may present even months or years after the primary surgical procedure. There should always be a high index of suspicion in the diagnosis of this condition as it can lead to extensive extirpative surgery which may result in further complications. The differential diagnosis in acute presentation can be a postoperative collection, hematoma, and non-foreign body abscess.<sup>[9]</sup> Chronic presentations can simulate a tumor or subacute intestinal obstruction.<sup>[9]</sup>

Diagnosis of gossypiboma requires a careful review of the patient's history. The various diagnostic modalities include plain radiographs, ultrasound, computerized tomography, and magnetic resonance scans.<sup>[10,11]</sup> A whorl-like appearance on a plain abdominal radiograph is characteristic of retained surgical sponges, seen due to gas trapped in the filus of the gauze.<sup>[11]</sup> Ultrasounds are mostly diagnostic, its features being a well-delineated mass containing wavy internal echoes with a hypoechoic rim and a strong posterior acoustic shadowing which changes in parallel with the direction of the ultrasound beam.<sup>[11,12]</sup> It is seen as a rim enhancement on computerized tomography.<sup>[11]</sup> The characteristic internal structure of gauze granuloma is best visualized on magnetic resonance imaging which also shows the low-signal intensity lesion with wavy, striped, spotted appearance on T<sub>2</sub>-weighted images.<sup>[13]</sup>

Early identification becomes mandatory for appropriate as well as timely intervention and prevention of complications. Non-healing wounds, intestinal obstruction, perforation, fistula formation, etc. form just the tip of the iceberg of the plethora of complicated sequelae following this surgical mishap.

Nonsurgical approaches such as percutaneous retrieval of foreign bodies are reported but with limited success.<sup>[14]</sup> The definitive modalities are removed either surgically, laparoscopically, or endoscopically.<sup>[15-17]</sup> Open surgery is the most commonly used method for removal, especially from the abdomen because repair or resection of intestines may be required in accompaniment.<sup>[18]</sup>

All said and done, it is always better to take precautions against the occurrence of this callous surgical error as 'prevention is definitely better than cure'.

## CONCLUSION

Retained foreign bodies not only cause considerable morbidity, but also have many medicolegal implications. A strict adherence to learnt medical training, a better following of operating room rules and regulations as well as the basic principles of "instrument and mop counts" prior to wound closure, is mandatory in order to prevent the occurrence of this condition.

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