

CASE REPORT

Spontaneous Intraluminal Migration of Gossypiboma

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ABSTRACT

Retained surgical mops following surgery is an avoidable but serious complication. They are seldom reported because of medicolegal implications but clinicians need to be aware about varied presentations of this entity to avoid unnecessary morbidity. We report a case of a 28-year-old woman who presented with chronic diarrhea and lower abdominal pain due to intraluminal migration of the surgical mop into the sigmoid colon 6 months after myomectomy of the uterus. The possibility of gossypiboma was suggested by the contrast-enhanced CT scan of the abdomen. Flexible sigmoidoscopy showed the remnants of the mop inside the lumen of the sigmoid colon. She underwent laparotomy and removal of the surgical mop and became completely asymptomatic. Though gossypiboma is rare clinicians should keep it in mind in patients who had undergone laparotomy previously. (*J Dig Endosc* 2011;2(1):22-24)

Key Words: Gossypiboma - Surgical mop – Sigmoidoscopy – Abdominal mass – Chronic diarrhea

Introduction

The term “gossypiboma” denotes a mass of cotton that is retained inside the body following surgery. It is a serious but avoidable complication of surgery.[1] Its real incidence remains unknown because reporting of this entity is often suppressed due to fear of coverage by print as well as electronic media, medicolegal implications and adversely affecting the reputation of the surgeon. It has varied clinical presentations and often causes confusion in the diagnosis. We report a 28-year-old woman who presented with chronic diarrhea and the mop was seen extruding into the lumen of the sigmoid colon. Intraluminal migration of the surgical mop is a very unusual sequelae.[2]

Case report

A 28-year-old lady presented with history of low back ache and loose stools of 4 months duration. Low back ache progressively increased. Stools were loose, of small volume with a frequency of 5-6 motions per day and was associated with blood and mucus. Diarrhea occurred during night as well. She also had low grade fever. No history of tenesmus, urinary symptoms or discharge per vaginum. Six months prior to the onset of symptoms she had undergone

myomectomy of the uterus for menorrhagia. General examination showed mild pallor. Vitals were stable.

Abdomen showed fullness in the lower abdomen and a transverse scar in the hypogastrium. A mass was palpable in the hypogastrium extending to lower umbilical area and right iliac fossa measuring 10 X 8cm, globular in shape, with smooth surface and rounded edges, firm in consistency with restricted mobility, and mildly tender. Flanks were resonant and per rectal examination was normal. The tentative diagnoses included Crohn’s disease with intra abdominal abscess, cancer of the rectosigmoid region, tuberculosis with cocoon formation/cold abscess, retroperitoneal tumour and tubo ovarian mass.

Blood investigations showed a haemoglobin of 9.9g/dl, total leucocyte count of 13800/mm³ and an ESR of 98mm/hour. Stool routine showed pus cells and red blood cells. Renal and liver function tests were normal.

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Ultrasonography (Figure 1) of the abdomen revealed a complex mass with hyper and hypo echoic areas in the lower abdomen. Adnexa was normal. There were small fibroids in the uterus. Initial sigmoidoscopy showed a bulge in the wall

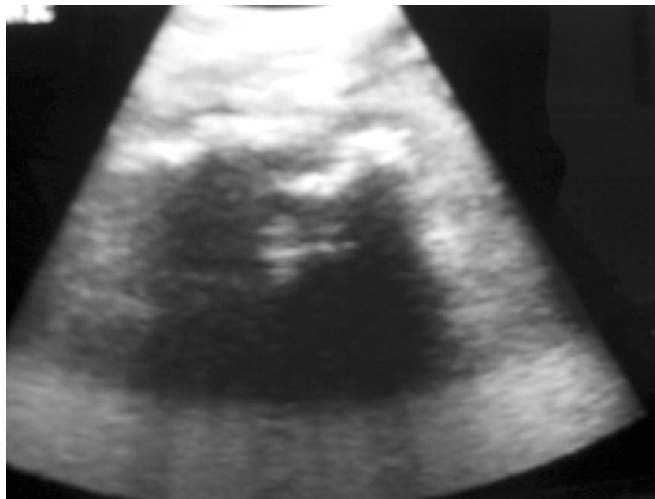


Figure 1: Ultrasonography of the abdomen showing complex mass with hyper and hypo-echoic areas in the lower abdomen

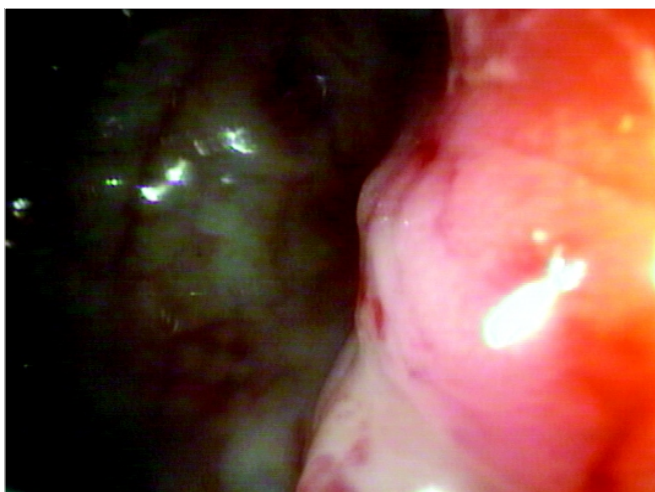


Figure 2: Video-sigmoidoscopy showing the bulge in sigmoid colon with surrounding inflammation

of sigmoid colon with inflammatory changes (Figure 2). Contrast enhanced CT scan of the abdomen showed a complex mass with air pockets within it (Figure 3). Later when the sigmoidoscopy was repeated after the CT scan, the portion of the mop in the form of threads of the cotton was seen protruding into the lumen of the sigmoid colon. (Figure 4). Patient underwent laparotomy which revealed an inflammatory mass with a pack in situ which has eroding into the sigmoid colon. The surgical mop was removed and a segmental sigmoid resection and end to end anastomosis was done. Post procedure period was uneventful and patient remained asymptomatic.

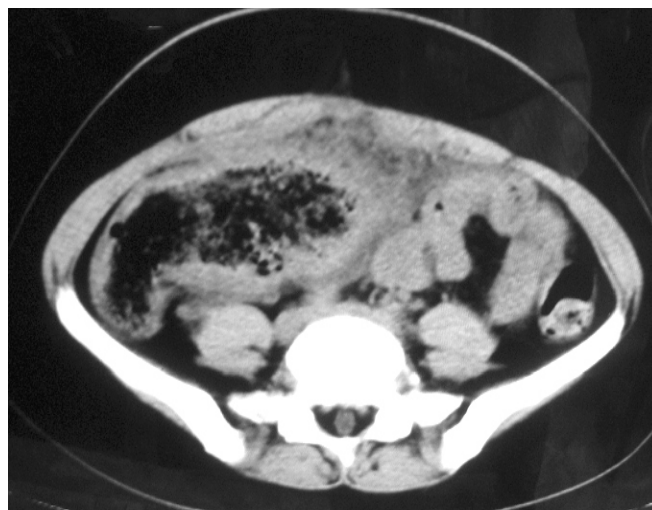


Figure 3: CT scan showing complex mass with a thick peripheral rim containing air bubbles with a mesh-like appearance

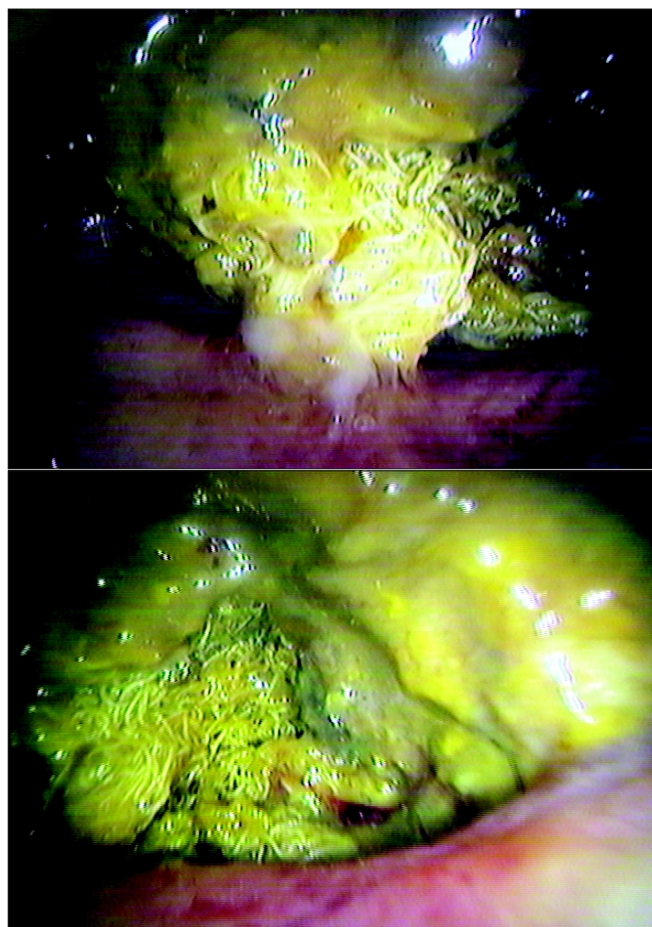


Figure 4: Repeat sigmoidoscopy showing the mop with its cotton threads seen within the lumen of the sigmoid colon

Discussion

The word “Gossypiboma” is derived from the Latin words “gossypium” (cotton) and the “boma” (place of

concealment).³ Despite improvements in the development of surgical techniques and operating room facilities and an awareness of the importance of check counts at the end of an operation, the presence of foreign bodies within patients after surgery remains a problem.[4] Surgical sponge is the most frequently retained foreign body.[5] The majority of described cases occur after gynecological surgery (53%).[6] The risk factors for gossypiboma include emergency surgery, unexpected change in surgical procedure, change of surgeon during the course of the operation, intraoperative complications such as hemorrhage and obesity.[7]

A possible reaction to a foreign body is exudative inflammatory reaction with an abscess formation, surrounded by omentum and nearby organs attempting to encapsulate the object. The pressure exerted by the resultant abscess and the sponge may erode into the lumen of the bowel due to peristaltic movements. A retained surgical sponge can penetrate the intestine, urinary bladder, thorax or vagina.[8,9] Intestinal penetration may occur in any part of the intestinal tract,[10] although it is more frequent in the ileum or the colon. In our case the surgical mop penetrated into the sigmoid colon and had reached the lumen. There are reports in the literature regarding the spontaneous extrusion of the mop which was followed up endoscopically.[11]

Gossypiboma may be misdiagnosed as a malignant tumor, bezoar, or inflammatory mass and lead to unnecessary invasive diagnostic procedures. Ultrasonography, CT scan or magnetic resonance imaging (MRI) are quite valuable in making a correct diagnosis in most cases particularly in the background of a previous surgery. Although CT scan may show characteristic appearance of a soft tissue or non-homogenous mass with air bubbles and whirl-like patterns, but the lesion may mimic a malignant tumor.[12]

Our patient underwent surgery as she was severely symptomatic and the mop was very large which had caused a large rent. Although, surgery remains the mainstay of treatment, but laposcopic or endoscopic approaches may be successful in selected cases.[13]

Conclusion

In conclusion, intraluminal migration of gossypiboma into the sigmoid colon presented with chronic diarrhea, fever and abdominal mass. The possibility of gossypiboma was

suspected with the help of contrast enhanced CT scan of the abdomen and was confirmed preoperatively by sigmoidoscopy. Prevention is the best form of treatment for this entity in order to avoid unnecessary morbidity.

References

1. Patil KK, Patil SK, Gorad KP, Panchal AH, Arora SS, Gautam RP. Intraluminal migration of surgical sponge: gossypiboma. *Saudi J Gastroenterol* 2010;16:221-2.
2. Zantvoord Y, van der Weiden RM, van Hooff MH. Transmural migration of retained surgical sponges: a systematic review. *Obstet Gynecol Surv* 2008;63:465-71.
3. de Campos FF, Franco F, Maximiano LF, Martinês JA, Felipe-Silva AS, Kunitake TA. An iron deficiency anemia of unknown cause: a case report involving gossypiboma Clinics (Sao Paulo). 2010;65:555-8.
4. Cruz RJ Jr, Poli de Figueiredo LF, Guerra L. Intracolonic obstruction induced by a retained surgical sponge after trauma laparotomy. *J Trauma* 2003;55:989-91.
5. Grassi N, Cipolla C, Torcivia A, Bottino A, Fiorentino E, Ficano L, Pantuso G. Trans-visceral migration of retained surgical gauze as a cause of intestinal obstruction: case report. *J Med Case Reports* 2008;24:17.
6. Iglesias AC, Salomao RM. Intra-abdominal gossypiboma – Study of 15 cases. *Rev Col Bras Cir* 2007;34:105-13.
7. Gawande AA, Studdert DM, Oraw EJ, Brennan TA, Zinner MJ. Risk factors for retained instruments and sponges after surgery. *N Engl J Med* 2003;348:229-35.
8. Sharma D, Pratap A, Tandon A, Shukla RC, Shukla VK. Unconsidered cause of bowel obstruction – gossypiboma. *J Can Chir* 2008;51:E34-5.
9. Silva CS, Caetano MR, Silva EA, Falco L, Murta EF. Complete migration of retained surgical sponge into ileum without sign of open intestinal wall. *Arch Gynecol Obstet* 2001;265:103-4.
10. Shibi M, Mahesh V, Mukunda M, Noronha S, Krishnadas D, Nair VKR. Intraduodenal gossypiboma as an unusual cause of gastric outlet obstruction. *J Dig Endosc* 2010;1:63-5.
11. H Alias, A Soylu, K Dolay, M Kalayci, A Ciltas. Surgical intervention may not always be required in gossypiboma with intraluminal migration. *World J Gastroenterol* 2007;13:6605-7.
12. Kalovidouris A, Kehagias D, Mouloupoulos L, Gouliamos A, Pentea S, Vlahos L. Abdominal retained surgical sponges: CT appearance. *Eur Radiol* 1999;9:1407-10.
13. Karahasangolu, Unal E, Memisoglu K, Sahinceri, Atkocvar G: Laparoscopic removal of a retained surgical instrument. *J Laparoendosc Adv Surg Tech A* 2004;14:241-43.

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