GOSSYPIBOMA

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INTRODUCTION

The Term "Gossypiboma" denotes a mass of cotton that is retained in the body following surgery. Usually the patient presents with vague abdominal symptoms and the gauze is seen in an imaging investigation. Fistula formation between the intestinal lumen and the cavity around the gauze is also common. Rarely the gauze migrates and may pass into the lumen of intestine or urinary bladder. Retained surgical gauze has been reportedly passed out per urethra [1]. To document a rare presentation of retained surgical gauze, this case is being reported.

CASE REPORT

A 37 year old female presented with colicky pain abdomen, abdominal distension and vomiting of one day duration.

She had a history of four previous abdominal / pelvic surgeries. Most recent was a cholecystectomy which was done five months earlier. Before that she had two Caesarean sections, 2 and 5 years earlier. She also had an appendectomy 3 years earlier.

On examination she was in pain, her abdomen was distended and bowel sounds were few and tinkling. The whole blood analysis showed marked leukocytosis (white blood cells: 21000 / mm^3) X-Rays of the abdomen revealed distended small intestinal loops with air-fluid levels. An ultrasound revealed distended gut loops. A diagnosis of intestinal obstruction was made and laparotomy was carried out. At laparotomy she had distended small intestine upto the terminal ileum, where an intraluminal firm mass could be palpated. An enterotomy was made and a surgical gauze (chest swab) was extracted. Enterotomy was closed and a thorough search was made for any other intra or extra luminal swabs, none was found. There was no scarring or adhesions of the gut. No peritoneal fluid/pus collection was found.

Patient made an uneventful recovery and was discharged on seventh post operative day.

DISCUSSION

The term "gossypiboma" denotes a cotton foreign body that is retained inside the patient during surgery [1]. It has been reported to occur following surgical procedures such as abdominal, thoracic, cardiovascular, orthopedic, and even neurosurgical operations [2]. The incidence is 1 in 100 to 3000 for all surgical interventions. It can be diagnosed preoperative with the help of radiological studies like plain radiography, when surgical gauze has been impregnated with radio-opaque marker, ultrasonography, computerized tomography, and gastrointestinal contrast series. Although some non-surgical approaches such as per cutaneous radiological retrieval of foreign bodies are reported, they might either be unsuccessful or generate attendant complications [3]. Surgery is the most reliable method of removing the foreign bodies especially from the abdomen. Development of a fistula to the neighboring organ such as stomach duodenum or intestine occurs infrequently [4]. The longer the retention time the higher the risk of fistula formation. Foreign bodies (e.g. surgical sponge) may completely migrate into the ileum without any apparent opening in the intestinal wall. [5]. They usually cannot pass the iliocaecal valve and cause complete intestinal obstruction at this level. However if they can pass through this valve, they are easily discharged through the anus.

Gossipiboma is a fairly common occurrence in surgical practice, but a retained swab migrating in the lumen of a hollow viscus is rarely reported.

There have been a few reported cases of a swab either being passed out through anus or

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causing intra luminal obstruction. In 3 such

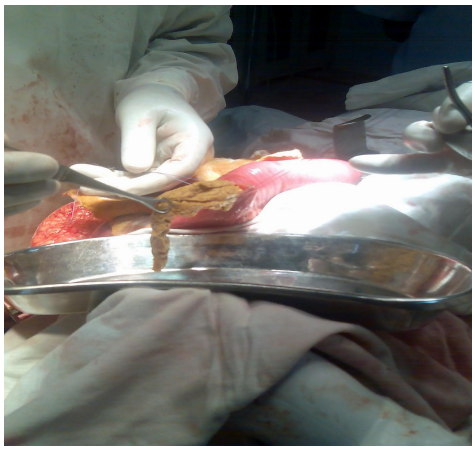

Fig1: Cotton Swab Being extracted from small intestine

Fig 2: Swab which caused intestinal obstruction.

cases the swab has been reported to pass out through the urethra. During a laparotomy in Japan, a retained gauze was removed when half of it had migrated inside the lumen of small intestine. A high index of suspicion is invaluable in diagnosis and treatment of such cases.

Once gossypiboma is diagnosed, it should be removed. Besides many diagnostic and therapeutic difficulties, gossypiboma also carries some medico-legal implications.

Prevention is the best treatment. Implement three measures; 1. meticulous count of all surgical materials; 2. thorough exploration of the surgical site at the conclusion of the procedures, and 3. routine use of surgical textile materials impregnated with a radio-opaque marker.

When in doubt intraoperative radiological screening may detect any retained surgical gauze impregnated with radio opaque-marker. If still no gauze is found, this should be recorded in the notes and the patient be sent for an MRI. If gauze is found, the patient is re opened and the gauze removed.

REFERENCES

1. Rasim Gencosmanoglu, Resit Inceoglu.An unusual cause of small bowel obstruction;Gossypiboma – case report. BMC Surgery 2007: 3: 1-7
2. Rajgopal A, Martin J: Gossypiboma-"a surgeon's legacy": report of a case and review of literature. Dis Colon Rectum 2002, 45:119-20 [Pub Med Abstact]
3. Nosher JL, Siegel R: Percutaneous retrieval of nonvascular foreign bodies. Radiology 1993, 187:649-651. [PubMed Abstract]
4. Dux M, Ganten M, Lubienski A, Grenacher L: Retained surgical sponge with migration into the duodenum and persistant duodenal fistula. Eue Radiol 2002, 12;74-77.[PubMed Abstract]
5. Silva CS, Caetano MR, Falco L, Murta EF: Complete migration of retained surgical sponge into ilium without sign of open intestinal wall. Arch Gynecol Obst 2001, 265:103-104. [PubMed Abstract]
