

Retained intra-abdominal post surgical gauze expelled with defecation :Case report

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Abstract:

Background: Retained surgical gauze is one of the serious complications after abdominal surgeries. It's underreported due to its medico-legal implications . **Presentation of case:** To our knowledge this is the first reported case in Iraq of gossypbioma left behind for 11 months after cesarean section .A 43-years-old lady presented with chronic lower abdominal pain admitted in medical ward for further work up. Plain abdominal X-ray revealed intra-abdominal foreign body and proved by CT scan to be retained surgical gauze inside the intestine which expelled through defecation after 2 days of imaging .She reported dramatic improvement and no surgical intervention needed and no more complaints felt after that event. **Conclusion:** Despite the intraoperative surgical gauze number registering , retained surgical sponge and other foreign bodies remain to happen every now and then but trans-mural migration is rare. Surgical intervention should be considered for removing it ,but in absence of acute complications e.g. intestinal obstruction, sepsis or gastrointestinal hemorrhage ,conservative management can be tried and become an option before embarking on surgical intervention.

Key words: Gossybioma ,retained surgical gauze, transmural migration.

Introduction:

Retained intra-abdominal surgical gauze is a condition reported sporadically . Gossybioma is another term applied for retained surgical gauze which compose of Gossypium mean cotton in Latin and boma means place of concealment in Kiswahili.¹ It is rarely reported due to its medico-legal implications .² The true incidence is largely unknown and different estimates have been reported which is ranging from 1:1000 to 1:5000 laparotomies.³ It has negative effect on the patient's health as well as on the surgeon's professional reputation. Its clinical features are variable ranging from accidental postoperative finding of the gauze to abdominal pain ,sepsis, intestinal obstruction ,fistula formation.⁴ One of the rare complications of gossybioma is trans-mural migration into the ileum, stomach, colon, or bladder without any apparent opening in the wall of these hollow organs.⁵

Retained surgical gauze can be diagnosed preoperatively by radiological studies such as plain radiography as most surgical gauze has radiopaque markers but to identify transmural migration CT scan can be used to detect its exact location.⁶ The aim of presenting this case is to highlight rarity of the transmural migration of retained surgical gauze and its spontaneous expulsion with defecation without any surgical intervention .

Case history :

A 43-years-old lady who had undergone emergency caesarean section in Maternity Hospital 11 months earlier. She has been admitted to the medical ward complaining of abdominal pain ,anorexia, abdominal distension but no constipation. The physical examination revealed tenderness on left side of umbilicus . Her cesarean section was complicated due to bleeding from the angles of the uterine incision. She had frequent gynecologic, medical and surgical consultations in the previous months for the colicky abdominal pain which was treated conservatively with analgesics and antispasmodic agents but with little temporary response .She reported an occasion of acute abdominal pain with fever , peri-umbilical swelling in first few weeks of postpartum period for which she was admitted and treated with intravenous antibiotics .During the duration of her illness several abdominal ultrasound scanning had been done during those consultations but no plain abdominal radiography had been taken. All hematologic and biochemical tests were normal apart from mild hypochromic microcytic anemia .In last admission, Plain radiograph of abdomen (Figure 1) ordered and revealed radiopaque foreign body about 5 cm in length in the center of abdomen .Ultrasound scanning of abdomen detected irregular thickening of loop of bowel with linear bright object found inside the lumen of bowel with mild dilatation of the abnormal bowel loop proximal to the object. In Double contrast CT scan of abdomen a hyper dense intraluminal shadow seen in central bowel loop with mild dilatation (Figure 2) . Unexpectedly , next day the patient expelled painfully a big surgical sponge 40*40cm with defecation (Figure 3) . She reported dramatic relieve of abdominal pain and had taken for the first time very good breakfast that she had not in the past 11 months. No medico-legal claim has been filed.



Figure 1 : Plain abdominal radiograph shows radiopaque shadow in the center of abdomen



Figure 2 (A,B and C) : Contrast enhanced abdominal CT scan reveals transmurial migration of the gauze into the small intestine (white arrow)



Figure 3: photograph shows expelled surgical gauze

Discussion:

Retained surgical gauze is serious problem facing patients and surgeons. The risk factors are emergency ,gynecologic ,general surgery operations, obesity ,changes in treatment team ,excessive blood loss in trauma patients, unplanned procedural changes and failure to count surgical sponges .⁷ ,⁸ clinical presentation of retained gauze is variable ranging from asymptomatic silent foreign body granuloma for years to inflammatory exudative intra abdominal mass .⁸ Some patients reaching to 6% may remain asymptomatic and may never be discovered .³ The exudative mass may cause abscess or eroding the adjacent viscera causing fistula or perforation. Trans-mural migration of the exudative intra-abdominal gauze to the intestine is one of the possibilities and the small intestine is the most common part of the intestine into which migration takes place because of large outer surface area and thin wall offering least resistance.⁹ Wattanasirichaigoon describes 4 stages in the

process of migration: foreign body reaction, secondary infection, mass formation, and remodeling.⁸,
⁹ After migration of the retained gauze to the intestine it might cause intestinal obstruction or haemorrhage.¹⁰ Its expected after migration of the retained gauze it will be impacted in the distal ileum but in the current case it was spontaneously expelled with defecation only after 2 days of contrast imaging. Our explanation is the contrast which used was gastrograffin which is probably due to its osmotic effect may facilitate its expulsion through rectum. To our knowledge this is fourth reported case of retained surgical gauze expelled spontaneously through the rectum.

Most retained gauze has radiopaque marker that make it visible on plain x ray, which was the key of diagnosis of the current case, but the CT scan prove its intraluminal location.

Conclusion:

In conclusion, any patient with postoperative abdominal pain for long duration, responding partially for treatment, should have plain radiography of abdomen to exclude retained objects, which is simple and not costly. It will guide us for further costly and complicated investigations, if needed.

Its recommended that accurate sponge counting is mandatory and the surgeon can proceed to closure of abdomen after ensuring correct number of gauze by the scrub nurse and systematic wound/body cavity examination. Its also advisable to use only sponge with radiopaque markers specially in abdominal surgeries. Lastly, conservative management can be an option of treatment in retained intraluminal gauze with no major complications e.g. intestinal obstruction, sepsis and hemorrhage. Recently using electronic markers are the most sensitive and specific tool to avoid missing sponge after operation.

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