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GOSSYIPIBOMA MASQUAREDING AS ABNORMAL UTERINE BLEEDING: A CASE REPORT AND REVIEW OF LITERATURE

Mekyus Elias Sanga

mekyus.sanga@scholar.aku.edu

The Aga Khan University,Tanzania

Daisy Abi Mhando

The Aga Khan University,Tanzania

Ntoli Mwakibete

Muhimbili National Hospital-Mloganzila

Case Report

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Posted Date: November 12th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-11494796/v1

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Additional Declarations: No competing interests reported.

TITLE: GOSSYIPIBOMA MASQUAREDING AS ABNORMAL UTERINE BLEEDING: A CASE REPORT AND REVIEW OF LITERATURE

Authors: Mekyus Elias Sanga[1*], Daisy Abi Mhando[2] & Ntoli Mwakibete[3]

1.Department of obstetric and gynecology, The Aga Khan University, Dar es salaam-Tanzania. mekyus.sanga@scholar.aku.edu

2. Department of obstetric and gynecology, The Aga Khan University, Dar es salaam-Tanzania. daisy.mhando@scholar.aku.edu

3. Department of obstetric and gynecology, Muhimbili National Hospital-Mloganzila, Dar es salaam-Tanzania. tollynino@yahoo.com

*Corresponding author: Mekyus Elias Sanga, mekyus.sanga@scholar.aku.edu

Abstract:

Background: Retained foreign objects cause substantial morbidity and have medical legal implications. Abdominal cavity is the most common place of retention with variable presentation. We present a rare case of abnormal uterine bleeding following gossypiboma in the uterus.

Case presentation: 29years old, Para 1 living 1 who presented with abnormal uterine bleeding 4 months post delivery by caesarean section. She was incidentally found intraoperatively to have a retained surgical sponge (gossypiboma) in the endometrial cavity. She recovered smoothly there after.

Discussion and conclusion: Foreign body retention in the endometrial cavity is a rare occurrence. When it happens commonly present with signs and symptoms of infection unlike the present case which presented with abnormal uterine bleeding. Emergency surgical procedures and long surgeries are among the risk factors for these unfortunate mishaps.

Prevention is the main stay of management of these surgical complications. A thorough evaluation, including consideration of retained foreign bodies like gossypiboma as a possible cause, is essential for patients with delayed vaginal bleeding after caesarean delivery. Strict adherence to surgical safety checklists is crucial to prevent such never-events**.**

Key words: Abnormal uterine bleeding, caesarean section, Case report, foreign body, gossypiboma

Introduction:

Retained foreign objects, that is surgical items unintentionally left inside patients are preventable medical errors with serious clinical and legal consequences(Shyung et al., 2005). Gossyipiboma/Textiloma is the terminology used if the retained material is surgical sponge or cotton material(Gawande et al., 2003). Although global safety initiatives like equipment counts and the world health organization (WHO) surgical Safety Checklist are in place, these events still occur worldwide, regardless of a facility's resources. These considered "never events," often lead to severe long-term complications, including chronic infections, fistulas, and potentially life-threatening sepsis (Maranya et al., 2017). We present a case of abnormal uterine bleeding presented 4 months post delivery by caesarean section in which intraoperatively it was found to be due to retained gauze which was removed and the patient cured.

Case presentation:

A 29-year-old woman, para 1 with 1 living child, presented 4 months post-caesarean section at a peripheral district hospital (performed for macrosomia, delivering a 4.1 kg male infant) with abnormal brownish vaginal discharge and intermittent heavy bleeding with clots. She reported generalized weakness but denied headache, palpitations, syncope, dyspnoea, limb swelling, fever, or abdominal pain.

On examination, she was conscious, alert, afebrile, non-dyspneic, non-pale, non-icteric, with no oedema and normal vital signs. Abdomen showed a healed Pfannenstiel scar, soft and non-tender abdomen with well-involuted uterus, no abnormal palpable masses, and normal bowel sounds.

Pelvic ultrasound revealed a hyperechoic intracavitary uterine mass; CT scan showed an intramural mass (6.8 x 4.1 cm). MRI confirmed a large submucosal mass (6 x 3 x 4 cm) (Figure 1)

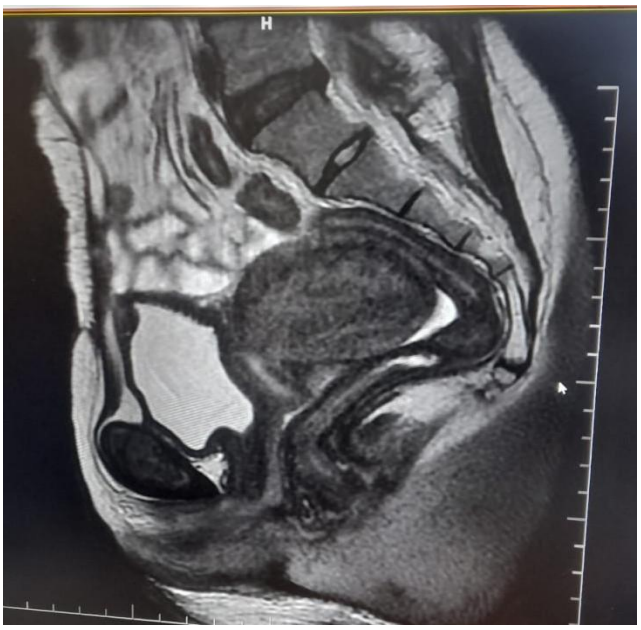


Figure 1: A T2 MRI image, sagittal view showing a hypointense lesion occupying the endometrial cavity

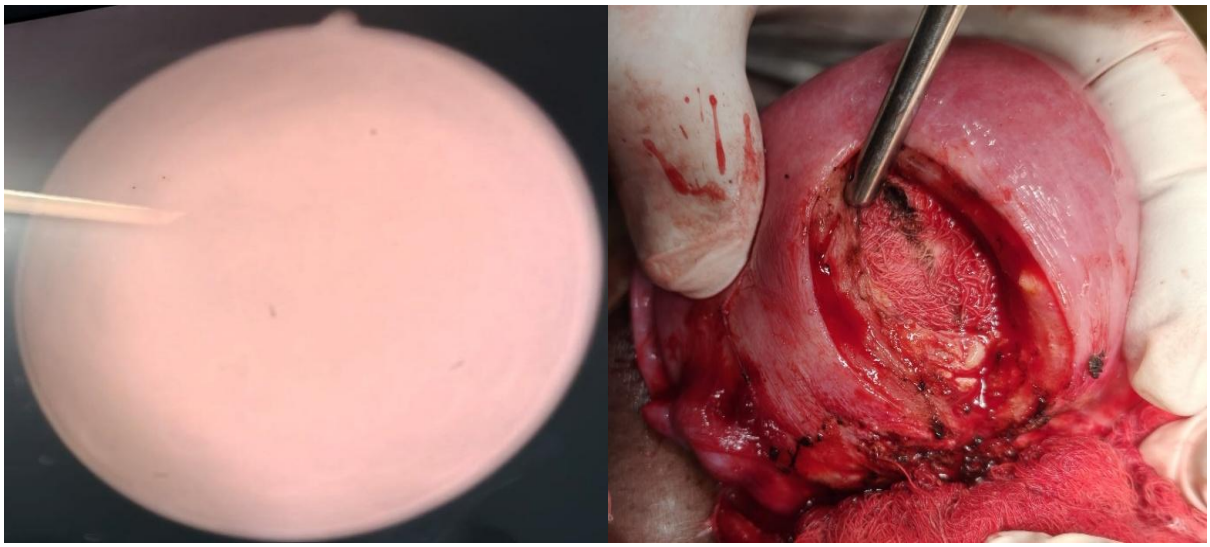


Figure 2: Hysteroscopic view of the lesion (Left), intraoperative view of the gause (Right)

Following counselling, she consented to hysteroscopy with possible laparotomy. Hysteroscopy revealed an ill-defined, whitish intracavitary lesion with obscured tubal ostia, prompting laparotomy. Intraoperatively, a bulky 12-week-sized uterus with minimal lower segment adhesions was noted. A classical uterine incision revealed retained gauze(gossypiboma), which was removed (Figure 02). The uterus was repaired in 2 layers using vicryl 1 and haemostasis was achieved; the abdominal wall was closed in layers.

The patient had an uneventful recovery, was discharged on postoperative day 3, and at day 10 follow-up showed complete incision healing with no per vaginal bleeding or discharge. Subsequent follow-up after 3 months was uneventful.

Discussion and conclusion:

Gossypibomas most frequently occur in the intraperitoneal cavity. While the true incidence remains uncertain, detection rates have declined over time—from 1:1,000 abdominal surgeries to 0.08–0.18:1,000 in more recent studies. Among surgical procedures, retained foreign bodies (RFBs) are most identified after caesarean sections (17.69%), followed by abdominal

hysterectomies (16.33%) and emergency exploratory laparotomies (13.54%). Gossypibomas account for 17%–68% of all RFBs (Varlas et al., 2023). Notably, Birolini et al., analysing 4,547 cases, found that textilomas comprised 90% of cases, with large sponges being the predominant type(Birolini et al., 2016).

Information regarding gauze retention within the endometrial cavity as it was in this case is scarce. Once it happens commonly present with foul smelling per vaginal discharge due to infection which can complicate to sepsis if not detected early. This case presented with abnormal uterine bleeding with no signs of infection. However, in the literature the presentation ranges from asymptomatic to vague symptoms depending on duration; and this contribute to delayed diagnosis. Common presentations include non specific abdominal pain, abdominal mass, signs of intestinal obstruction, haematuria or incidental finding on evaluation for other conditions (Rokhgireh et al., 2017).

Time of detection depend on the intensity and severity of clinical manifestations; one review demonstrated a detection range of 1 day to 40years (Wan et al., 2009). In this case gossypiboma was found 4 months post delivery by emergency caesarean section following evaluation for persistent bleeding. Unlike in the previous reported case of persistent abnormal uterine bleeding abdominal pain and urinary symptoms which was discovered and removed 17 years later(Rokhgireh et al., 2017).

Gossypiboma is most commonly associated with emergency surgical intervention, 26% followed by wrong counting of surgical sponge,25% (Birolini et al., 2016). Reasons underlying this being non-compliance to established operating protocols, lack of coordination of the surgical team, multidisciplinary team, improper counting of the textile material due to increased blood loss, long and laborious operations, intraoperative instability of the patient, increased BMI, and comorbidities (Lincourt et al., 2007).

Gossypiboma increases surgical morbidity and cost of care on top of other complications. In the present case the patient had to be transferred from the district to the regional hospital and later to the tertiary hospital where she was finally definitively managed; all these have cost implications. Other complications include fistula formation (19.29%), perforations (12.28%), obstructions (5.26%) and bladder injuries(Javanmard et al., 2017; Lee, 2015; Todorovic et al., 2025). Because of these complications and associated medical legal implications for this morbidity investing in prevention is a worth strategy to undertake to improve surgical safety.

To enhance surgical safety the WHO has introduced standardized tools, surgical safety checklist which is meant to ensure that all important precautionary steps are adhered too and facilitate early recognition and intervention for any mistake(Nishiwaki & Ichikawa, 2014). Recognizing the differences in situations of caesarean section where two patients are taken care simultaneously, the society of maternal fetal medicine (SMFM) has adopted the WHO surgical safety checklist with modification to include this reality. It has also produced different options to capture different scenarios especially during critical emergency. Among other things it has kept emphasis on ensuring correct sponge and instrument count prior to abdominal closure (Combs et al., 2021). In the event of uncertainties or incorrect counting immediate imaging, preferably intraoperatively is recommended to allow early detection and removal surgical sponge. However, this will be feasible if the utilized surgical sponge has been incorporated with a radio-opaque material to allow detection(Kumar et al., 2017).

The association of perioperative registered nurses in their guidelines which was part of nothing left behind campaign: Have recommended the specific moments for sponge count; Initial count, before the procedure begin, whenever new item is added during the operation, before the surgeon closes the body cavity and when the surgeon closes the skin, the final count and at the time of permanent relief of either the scrub nurse or circulating nurse (Denver, 2018).

Commenting on the implementation of the SMFM checklist the emphasis has been put that improvement in surgical safety will depend not on the ticking of the presented checklist rather implementation of the actions they call up on. There fore creating a culture of safety and teamwork in adhering to established guidelines and standards will contribute significantly to the improved safety during caesarean section and there fore reducing morbidity and cost of care associated with retained materials. Indeed one of the systematic reviews have concluded that these check list have an impact in what they were intended for (Sotto et al., 2021).

When a woman who has delivered by caesarean section presents with vaginal bleeding after a significant period has elapsed, a thorough evaluation is recommended to identify the underlying cause. A retained foreign body, such as a gossypiboma, should also be considered as a possible cause. Adherence to established guidelines and surgical safety checklists remains the cornerstone of preventing such medical errors that should never occur.

List of abbreviations:

BMI Body mass index

MRI Magnetic resonance imaging

SMFM Society of maternal fetal medicine

WHO World heath organization

Declarations

- **Ethics approval and consent to participate:** Our institution does not require ethical approval for case reports.

- **Consent for publication:** Consent was thought from the patient for the publication of this case report, and it is available for review up o request.
- **Availability of data and materials:** Not applicable
- **Competing interests:** None
- **Funding:** None
- **Authors' contributions:**

  MS and DM: Data collection, development of the primary draft of the manuscript and review of the final manuscript prior to publication.

  NM: Data collection, supervision of primary manuscript development and review of the final draft of the manuscript prior to publication.

- **Acknowledgements:** We acknowledge the support received from Dr.Daudi Gidion,the assistant program director of residency program in the dapartment of obstetric and gynecology at The Aga Khan University,Tanzania who provided guidance during development of this manuscript.

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