Case Report

Journal of *the Best Available Evidence in* Medicine

https://doi.org/10.63720/v2i1011

The First Reported Case Worldwide of Chronic Gossypiboma Complicated by Secondary Tuberculous Psoas Abscess from Pott's Disease: A Case Report Highlighting Diagnostic Anchoring

Fieras M. Sharif,[1]* BSc ; Ahmed M. Elmeghrawi,[2,3] FACS, FEBS ; and Zainulabideen M. Alhadithi,[1] BSc

Abstract

Tuberculous psoas abscess secondary to spinal tuberculosis (Pott's disease) is a significant clinical challenge across the world. While gossypiboma (retained surgical gauze) is a known surgical complication, its coexistence with an active mycobacterial infection presents a unique presentation. Here we reported the first documented worldwide case of a secondary tuberculous psoas abscess arising from Pott's disease coexisting with a chronic gossypiboma in a 42-year-old woman. The diagnosis was missed for three years, during which her symptoms were mistakenly treated as recurrent urinary tract infections. Radiological imaging showed a large psoas abscess alongside a pelvic mass. A laparoscopic procedure revealed a large abscess and an encapsulated retained surgical gauze with dense adhesions (pseudocyst) that was removed. Mycobacterium culture confirmed the diagnosis; anti-tuberculous therapy was promptly initiated. We hypothesized that the gossypiboma may have provided a sequestered environment, potentially "hiding" or exacerbating the tuberculous process. This case shows the significant dangers of diagnostic anchoring and the importance of reconsidering diagnoses when treatment fails in patients with non-resolving symptoms. Managing such complex presentations of surgical and infectious pathologies requires a high index of suspicion and a multidisciplinary approach.

Key Words: Gossypiboma, Textiloma; Tuberculous psoas abscess; Pott's disease; Spinal tuberculosis; Retained surgical sponge; Diagnostic anchoring

Submitted: 23/02/2026

OPEN ACCESS

Published online: 26/05/2026

1. Faculty of Medicine, Libyan International University, Benghazi, Libya
2. Department of General Surgery, Benghazi Medical Centre, Benghazi, Libya
3. Faculty of Medicine, University of Benghazi, Benghazi, Libya

*Corresponding Author:

fieras_3444@limu.edu.ly

Introduction

Tuberculosis remains a major public health problem worldwide, with extrapulmonary tuberculosis accounting for a substantial proportion of cases, particularly in endemic regions. Skeletal tuberculosis constitutes approximately 10% of extrapulmonary tuberculosis, with spinal involvement (Pott's disease) being the most common manifestation.[1] Pott's disease often presents insidiously with non-specific symptoms, resulting in delayed diagnosis and increased morbidity. Early diagnosis significantly influences treatment outcomes, as standard therapy achieves healing in approximately 95% of patients.[1] Tuberculous psoas abscess due to direct extension of infection into the iliopsoas compartment represents a recognized but uncommon complication of spinal tuberculosis.[2]

Gossypiboma, also known as textiloma, refers to a retained surgical textile inadvertently left within the body following an operative procedure.[3] Despite advances in surgical safety protocols, gossypiboma remains a recognized complication, particularly in emergency surgeries and procedures associated with significant blood loss. Its true incidence is difficult to determine due to underreporting because of medicolegal concerns. The clinical manifestations of gossypiboma are highly diverse, potentially presenting as anything from acute postoperative sepsis to mechanical bowel obstruction.[4] The retained material may provoke an exudative inflammatory reaction with abscess formation or an aseptic fibrotic response leading to encapsulation and pseudotumor formation.[5]

To the best of our knowledge, the coexistence of gossypiboma and tuberculous psoas abscess has not previously been described. This case uniquely illustrates how diagnostic anchoring and overlapping nonspecific symptoms can obscure multiple rare pathologies, resulting in considerable diagnostic delay.

Case Presentation

A 42-year-old Libyan woman presented with a three-year history of chronic pelvic pain, recurrent right iliac fossa

© 2026 Sharif et al. Licensed under CC BY-NC 4.0.
The Journal of the Best Available Evidence in Medicine is published by Open Science Press Ltd, London, United Kingdom.
For more information, please visit: https://www.opensciencepress.com

discomfort, and intermittent low-grade fever associated with chills. She had been repeatedly treated in primary and secondary care settings for presumed recurrent urinary tract infection based on non-specific urinary symptoms and lower abdominal pain. Despite multiple courses of antibiotics, her symptoms persisted without sustained improvement.

Her medical history was otherwise unremarkable. Surgical history revealed a Caesarean section performed three years prior to presentation. She also reported a family history of tuberculosis 1 year ago. On examination, she was afebrile and hemodynamically stable. Abdominal examination demonstrated mild tenderness in the right lower quadrant without peritonism. No neurological deficits were identified at presentation.

Investigation

Laboratory investigations revealed markedly elevated inflammatory markers (C-reactive protein 360 mg/L), while routine hematological and biochemical parameters, urinalysis, and urine cultures were repeatedly negative, however, M. tuberculosis detection using the GeneXpert assay on a tissue sample (which showed no rifampicin resistance gene) and histopathology revealing chronic caseating granuloma were consistent with tuberculosis.

Abdominal ultrasonography demonstrated a heterogeneous mass in the right pelvis and suggested a deeper retroperitoneal collection. Contrast-enhanced computed tomography of the abdomen and pelvis revealed a well-defined, thick-walled encapsulated lesion measuring 13 × 8 cm within the right psoas muscle with peripheral enhancement, consistent with a psoas abscess (Figure 1). A separate pelvic soft-tissue mass measuring 6 × 4.5 cm with serpiginous calcification was also identified and initially interpreted as a right ovarian teratoma.

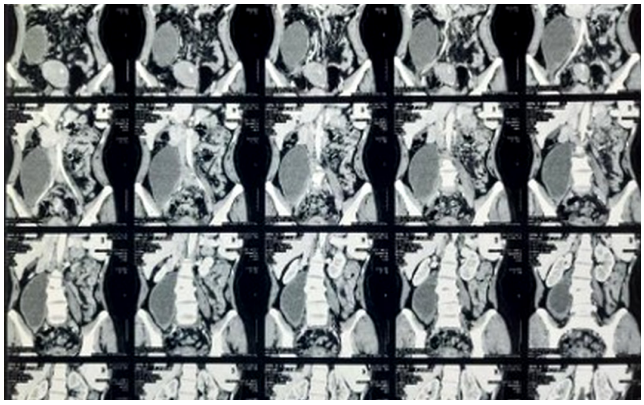


Figure 1: Coronal contrast-enhanced CT sections shows. (A) Large, encapsulated hypodense lesion (psoas abscess) occupying the right psoas muscle with prominent peripheral rim enhancement. (B) The abscess caused a significant craniocaudal tracking, extending from the L2 vertebral level down to the insertion of the iliopsoas muscle. (C) Evidence of L4-L5 intervertebral disc space narrowing and endplate erosion, characteristic of Pott's disease.

Treatment

Given the chronicity of symptoms and imaging findings, a diagnostic and therapeutic laparoscopic approach was undertaken. Intraoperatively, a dense fibrotic pseudocyst was identified adjacent to the terminal ileum. On opening the capsule, a retained surgical gauze was discovered, confirming the diagnosis of chronic gossypiboma (Figure 2). Extensive adhesolysis was required to free adherent bowel loops, and the pseudocyst was completely excised.

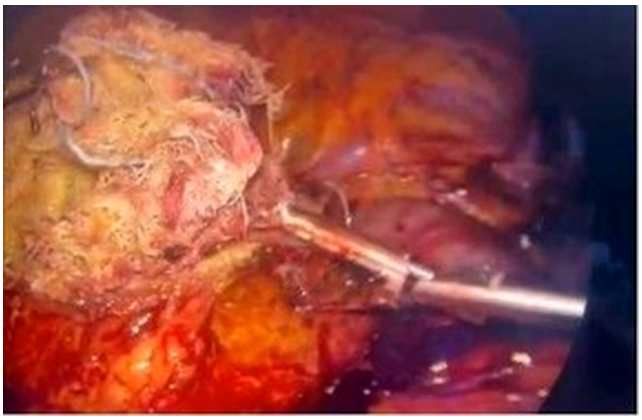


Figure 2: Intraoperative view of the retained surgical gauze within the abdomen.

Simultaneously, the right psoas abscess was accessed laparoscopically and drained, yielding approximately 600 mL of purulent material. The abscess cavity was irrigated thoroughly with normal saline, and large-bore drains were placed in both the psoas cavity and the abdominal cavity. Samples were sent for microbiological culture and sensitivity testing.

Postoperatively, after confirming the absence of contraindications, anti-tuberculous therapy was promptly initiated in accordance with national guidelines. The regimen consisted of a six-month course: a two-month intensive phase with four drugs (isoniazid, rifampicin, pyrazinamide, and ethambutol), plus vitamin B6 for six months.

The patient's postoperative recovery was uneventful. Her inflammatory markers improved significantly, with C-reactive protein decreasing to 32 mg/L at discharge. She reported complete resolution of pelvic pain and fever. Subsequent magnetic resonance imaging of the spine revealed vertebral destruction and collapse consistent with Pott's disease. Neurosurgical consultation was obtained, and the patient underwent appropriate spinal intervention. She continues to be followed jointly by surgery, infectious disease, and neurosurgery teams, with good clinical progress.

Discussion

This case demonstrates several important lessons in surgical and infectious disease practice. Diagnostic anchoring played a central role in the delay of diagnosis, with repeated attribution of symptoms to urinary tract infection despite failure of standard therapy. Such cognitive bias is particularly hazardous when rare conditions mimic common presentations.

Tuberculosis remains an important cause of secondary psoas abscess, particularly in endemic regions. Spinal tuberculosis can lead to infection extending into the psoas muscle due to the close anatomical relationship between the lumbar spine and the psoas muscle, which facilitates direct spread.[5] Tuberculous psoas abscesses often present as cold abscesses with minimal systemic signs, contributing to delayed recognition.[2] The exact relationship between the chronic gossypiboma and the tuberculous psoas abscess in this patient remains unclear. We hypothesize that the chronic inflammatory response to the retained gossypiboma have created a microenvironment favorable to tuberculous proliferation, potentially masking or delaying typical clinical signs.

Gossypiboma is known for its late and diverse clinical manifestations, with documented delays in diagnosis spanning months to decades—reportedly up to 20 years in one case.[6,7] Chronic cases often present as pseudotumors and may be mistaken for malignancy or other benign masses on imaging.[8] In this patient, the gossypiboma was initially misdiagnosed radiologically as an ovarian teratoma, consistent with previous reports in the literature.[9]

Surgical management was guided by principles established in the literature on abdominal gossypiboma, including complete removal of the retained foreign body and surrounding pseudo-capsule to prevent recurrence. Laparoscopic management, when feasible, offers the advantages of reduced morbidity, improved visualization, and faster recovery, even in complex cases. Simultaneous drainage of the psoas abscess allowed effective source control, while microbiological confirmation enabled targeted anti-tuberculous therapy. This case further emphasizes the importance of a multidisciplinary approach. Collaboration between surgeons, gynecologists, radiologists, infectious disease specialists, and neurosurgeons was essential to achieving a successful outcome.

Key Takeaways

- Gossypiboma can present years after surgery and mimic common or malignant conditions.
- Tuberculous psoas abscess should be considered in patients from endemic regions with unexplained retroperitoneal collections.
- Diagnostic anchoring can result in prolonged misdiagnosis and delayed treatment.
- Multidisciplinary management is critical in complex surgical and infectious cases.

Disclosure Statement

The authors declare no conflicts of interest.

Ethical Approval and Patient Consent

Ethical approval was not required for this anonymized case report. Informed consent from patients was obtained.

References

1. Glassman I, Nguyen KH, Giess J, et al. Pathogenesis, diagnostic challenges, and risk factors of Pott's disease. Clin Pract. 2023;13(1):155-65. doi:10.3390/clinpract13010014.
2. Xu C, Zhou Z, Wang S, et al. Psoas abscess: an uncommon disorder. Postgrad Med J. 2024. doi:10.1093/postmj/qgad110.
3. Bhati G, Bhati K, Gupta A, Rawat S, Bansal R, Bansal A. Gossypiboma persists: a case series and literature review highlighting the clinical spectrum, diagnostic dilemmas, and surgical outcomes from a single tertiary care centre. Abdom Radiol. 2025. doi:10.1007/s00261-025-05340-w.
4. Tajoury O, Hwaidi J, Adel A. Gossypiboma causing small bowel obstruction. J Surg Insights. 2019.
5. Ukweh ON, Akpan SO, Ntamu CO, et al. Gossypiboma: a case of retained intra-luminal surgical sponge leading to delayed diagnosis and treatment. SAGE Open Med Case Rep. 2024. doi:10.1177/2050313X241272732.
6. Noei Teymoordash S, Arab M, Talayeh M, et al. Asymptomatic intra-abdominal gossypiboma mimicking ovarian tumour. J Obstet Gynecol Cancer Res. 2021. doi:10.30699/jogcr.6.2.99.
7. Arıkan Y, Ozdemir O, Seker KG, et al. Gossypiboma: a dramatic result of human error. Prague Med Rep. 2019. doi:10.14712/23362936.2019.20.
8. Srivastava KN, Agarwal A. Gossypiboma posing as a diagnostic dilemma. Case Rep Surg. 2014. doi:10.1155/2014/713428.
9. Ozat M, Altinkaya S, Gungor T, Cağlar M, Zergeroglu S, Karaca M, et al. Extraovarian conditions mimicking ovarian cancer: a single center experience of 15 years. Arch Gynecol Obstet. 2011;284(3):713-9. doi:10.1007/s00404-010-1705-9.