



# A Case Report of Neglected Gossypiboma Causing Abdominal Pain for 20 Years Post-Cesarean Section

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Gossypiboma refers to a mass usually made of cotton (e.g., surgical gauze or sponge) that is accidentally left in a patient's body during surgery. We report the case of a 54-year-old multigravida menopausal woman who previously underwent cesarean section to deliver her second child. She was referred to our medical center after a 7 cm right ovarian mass with malignant potential was discovered. A diagnostic laparotomy was performed then confirmed the presence of a 10 cm gossypiboma attached to a metallic ring. This case is an alarming example highlighting the importance of adequate intraoperative counting of gauze and radiologic evaluation of chronic pelvic pain.

**Key Words:** Foreign body, Gossypiboma, Pelvic pain, Textiloma

## INTRODUCTION

Gossypiboma, or textiloma, refers to a retained surgical gauze or sponge unintentionally left in a patient's body after surgery. It is more likely to occur in obese patients and in certain circumstances such as emergency surgery and unplanned changes during surgery [1]. Gossypiboma can be asymptomatic, or they may be associated with a wide spectrum of symptoms and complications such as septic shock. Gossypiboma is diagnosed by radiological evaluation using plain radiography, computed tomography (CT) or magnetic resonance imaging [2] and is treated by surgical removal of the mass [3]. Asymptomatic gossypiboma can be neglected for a long time. In this respect, we would like to introduce a case of gossypiboma which is not diagnosed for 20 years.

## CASE REPORT

A 54-year-old multigravida menopausal woman with a history of cesarean section visited our hospital after

a right ovarian mass with malignant potential was found at a local medical center. The patient had a history of fetal demise at 36 weeks of her first pregnancy, and vaginal delivery was performed. Her second child was delivered by emergent cesarean section in 2002 at full term because of premature rupture of membrane. Postoperatively, she had severe pelvic pain for 1 month. She had gotten better in pelvic pain as time goes on, but she still had chronic pelvic pain localized to the right lower quadrant of the abdomen, exacerbating 2–3 times a week. Otherwise, the patient had no medical or operative history. She visited local hospitals for evaluation and relief of the pelvic pain. However, she was told through a transvaginal ultrasound that there were no abnormalities and she was only prescribed analgesic medications without further evaluation until 2021.

The patient was referred to our medical center with the finding of a 7 cm pelvic mass, suspected to be a right ovarian cyst with malignant potential. Transvaginal sonography was performed at our medical center, which revealed an 8.79 cm mixed echoic lesion without doppler uptake, located in the posterior cul-

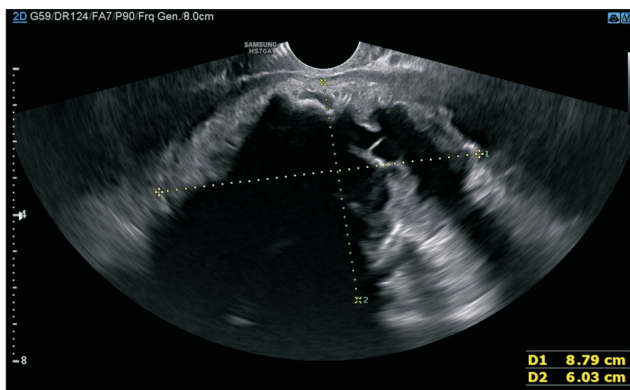
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de-sac (PCDS) (Fig. 1). For further investigation, an abdominal CT with contrast was performed. CT scan images revealed a ring-shaped foreign body near the vagina (Fig. 2). The radiologist diagnosed the metallic ring as a pessary; however, the patient denied a history of pessary insertion. In addition, a 10.4 cm well-margined pelvic mass with mostly cystic components and a serpiginous interior lesion were found (Fig. 3). The pelvic mass also showed posterior acoustic shadowing, suggestive of partial calcification. The first impression on CT imaging was a teratoma arising from the right ovary upon insertion of a vaginal pessary. Alternatively, the impression was of a gossypiboma with a metallic ring attached to a surgical pad.

After imaging work-up, due to the patient's history of



**Fig. 1.** Transvaginal sonography image of 8.79 cm sized mixed echogenic mass without doppler uptake located in the posterior cul-de-sac.

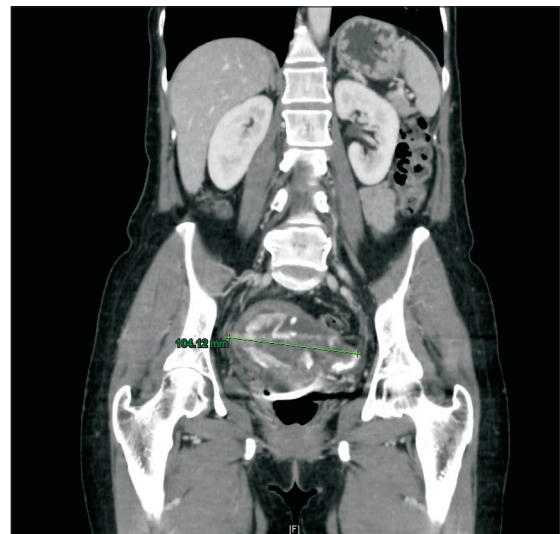


**Fig. 2.** A metallic ring was observed in the scout film of computed tomography.

cesarean section and a high probability of a gossypiboma, a diagnostic laparotomy was performed. The first surgical finding was a metallic ring trapped in the omentum near the right ovary, which was observed immediately after peritoneal opening. Attached to the metallic ring, a textile gossypiboma forming a ball-like mass inside the PCDS was observed. The mass was fragile; inside the mass, a pus-like material was found, which was collected for microbial culture. The gossypiboma adhered to the PCDS and rectal walls, and partially penetrated the right ovary. After careful adhesiolysis with electrocauterization, the mass was separated and removed. The origin of the foreign body was revealed by morphology of the excised specimen. It was a large surgical gauze attached to a metallic ring, frequently used in cesarean sections to push unwanted abdominal contents, such as the small bowel, out of the surgical field. In this case, the whole gauze with metallic ring was left in the patient's abdomen.

The patient was discharged two days after surgery without any acute complications. At her postoperative follow-up at the outpatient clinic, the patient had recovered well from surgery. No microorganisms were found in the intra-operative gossypiboma culture. At the one month follow-up, the patient reported resolution of her chronic pelvic pain.

This case report was approved by the Institutional Review Board of Samsung Medical Center (IRB No. 2022-05-110-002) and the written informed consent was



**Fig. 3.** Post-contrast coronal view computed tomography image of gossypiboma.

obtained from the patient.

## DISCUSSION

Gossypiboma is an avoidable human error that can cause serious postoperative complications. The known incidence of gossypiboma is 1 in 1,000–1,500 abdominal operations [4]. However, this number is based on a previously reported case. The incidence is likely to be underestimated due to the lack of reporting gossypiboma cases, since it may lead to a medico-legal lawsuit.

The most common symptoms of gossypiboma are pain and irritation (42%) [5]. Other possible symptoms include a palpable mass (27%) and fever (12%) [5]. The retained surgical gauze may cause complications in two pathways: exudative and fibrinous responses [6]. The exudative response is caused by complications such as obstruction and extrusion, leading to abscess formation or sepsis. The fibrinous response, on the other hand, is caused by aseptic capsulation or adhesion surrounding the gossypiboma. As in our case, a gossypiboma causing a fibrinous response may present as a chronic lump or a pelvic pain. Therefore, gossypiboma may be considered as a hidden cause of intractable chronic pelvic pain.

The clinical significance of our case is the exceptionally long duration of the gossypiboma. The patient had a surgical gauze and metallic ring intraabdominally for over 20 years, despite pursuing medical management several times prior to diagnosis. The literature has reported on underdiagnosed chronic pelvic pain in the female population [7-9]. Approximately 60 percent of women with chronic pelvic pain do not have a specific diagnosis, and 20 percent have never undergone any investigation [10].

Pelvic ultrasound, either transvaginal or transabdominal, is the first imaging modality of choice [11] when evaluating pelvic pain. Ultrasound is superior as the first diagnostic tool due to its relatively easy availability, high sensitivity, lack of radiation exposure, and low cost. In a study of 240 patients with pelvic masses, ultrasound, CT, and combined ultrasound/CT application were evaluated, and accuracy of them were 68.8%, 85.0%, and 91.7%, respectively.[12]. Therefore, when a pelvic mass is suspected on initial testing with ultrasound, a combination of ultrasound with CT might prove to be a useful diagnostic tool. In our case, a CT scan would have been helpful because gossypiboma was not detected on ultrasound at first. Therefore, our case highlights the importance of further radiological evalua-

tion for the diagnosis of chronic pelvic pain.

In conclusion, when a patient with a history of abdominal surgery complains of persistent pelvic pain, gossypiboma might be considered, even though the possibility is low, and additional radiological evaluation should be considered.

## CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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