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Migration of a Fallopian Tube Clip Into a Femoral Hernial Sac

Laila Abrahams [1], Waqas Ahmad [2]

1. Health Sciences, Queen's University, Kingston, CAN 2. Diagnostic Radiology, Queen's University, Kingston, CAN

Corresponding author: Laila Abrahams, lailamabrahams@gmail.com

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Abstract

Tubal ligation clip migration is a recognized late complication of sterilization, although symptomatic presentations are uncommon. We report a case of an 85-year-old woman with a remote history of bilateral tubal ligation who presented with several days of right groin pain and a gradually enlarging lump. CT of the abdomen and pelvis demonstrated a right femoral hernia sac containing fat, a small volume of fluid, and a 13 mm metallic clip. The right-sided tubal ligation clip was also visualized in its expected pelvic position, confirming that the clip within the right femoral hernia originated from the left side and had migrated across the pelvic midline. There was no evidence of bowel obstruction or strangulation. The patient underwent open repair of the right femoral hernia through an inguinal approach, during which the migrated clip was removed. Whether the clip contributed to hernia formation or became incidentally lodged within a pre-existing hernia remains uncertain. This case highlights the importance of considering prior tubal sterilization when evaluating unexpected metallic foreign bodies within the pelvis or groin. Cross-sectional imaging may assist in characterizing hernia contents and identifying migrated clips when clinically indicated.

Categories: Obstetrics/Gynecology, Radiology, General Surgery
Keywords: clip migration, contraception, femoral hernia, hernia, tubal ligation clip

Introduction

Female sterilization by tubal occlusion is among the most commonly performed contraceptive procedures worldwide, with clip-based devices such as the Filshie clip widely adopted since the early 1980s [1]. The clip occludes the fallopian tube by inducing avascular necrosis and separating it into two stumps that normally remain covered by regenerating peritoneum [2]. When peritoneal re-encapsulation fails, the clip can detach and migrate. Although Filshie clip migration has been reported in up to 25% of patients, most cases are asymptomatic, with clinically significant migration or extrusion occurring in only a small minority [2].

The identification of a migrated tubal ligation clip within a femoral hernia sac is an unusual presentation. Although the presence of a foreign body may provoke local inflammatory responses, whether the migrated clip contributed to hernia formation or was incidentally present within a pre-existing hernia cannot be determined from this case. The present case is further distinguished by radiologically supported contralateral migration of the left-sided tubal ligation clip into a right femoral hernia. This case highlights the diagnostic and surgical importance of recognizing migrated tubal ligation clips within femoral hernias while acknowledging that their presence does not establish a causal role in hernia formation.

Case Presentation

An 85-year-old woman presented to our emergency department with a several-day history of right groin pain and a gradually enlarging lump. She described the discomfort as dull and intermittent, worsened by standing or straining and eased by lying flat. She denied nausea, vomiting, fever, or any change in bowel habit, with no features to suggest intestinal obstruction.

Her medical history included hypertension and bilateral tubal ligation performed several decades prior. On examination, she was hemodynamically stable and afebrile, with a soft, non-distended abdomen. A tender, reducible mass was palpable below the right inguinal ligament, consistent with a femoral hernia. There were no overlying skin changes and no cough impulse.

CT of the abdomen and pelvis revealed a right femoral hernia sac containing fat and a small volume of fluid, with a 13 mm metallic clip identified within the sac (Figures *1*, *2*). Review of the CT images also demonstrated the right-sided tubal ligation clip in its expected pelvic position. This confirmed that the clip identified within the right femoral hernia represented the migrated left-sided tubal ligation clip, providing radiological evidence of left-to-right migration across the pelvic midline. There was no bowel involvement, strangulation, or free intraperitoneal fluid, and laboratory investigations were unremarkable.



FIGURE 1: Axial CT of a migrated tubal ligation clip within a right femoral hernia.

Axial contrast-enhanced computed tomography (CT) image of the pelvis demonstrating a 13 mm metallic tubal ligation clip (white arrow) within the right femoral hernia sac. The hernia sac contains fat and a small volume of fluid, without associated bowel involvement.



FIGURE 2: Sagittal reformatted CT of a migrated tubal ligation clip within a right femoral hernia.

Sagittal contrast-enhanced computed tomography (CT) image of the abdomen and pelvis demonstrating the 13 mm metallic tubal ligation clip (white arrow) within the right femoral hernia sac, corresponding to the finding shown in Figure 1.

The patient underwent elective open repair of the right femoral hernia through an inguinal approach under general anesthesia. Intraoperatively, the migrated tubal ligation clip was identified within the hernia sac and removed intact. The hernia contents were reduced without evidence of bowel ischemia or other complications. The defect was repaired with mesh, and the procedure was completed without intraoperative complications. Postoperative recovery was uneventful, and the patient was discharged with routine analgesia and surgical follow-up.

Discussion

Tubal clip migration is a recognized late complication of laparoscopic sterilization. Once the Filshie clip induces avascular necrosis and the tubal stumps retract, failure of peritoneal re-encapsulation may allow the clip to become mobile [2]. A systematic review of 33 published cases of long-term complications of mechanical tubal occlusion identified device migration in 30 cases [3]. Late complications of laparoscopic tubal sterilization have been described [4]. Migrated clips have been reported at various anatomical sites, including the vagina, urethra, and abdominal wall [2]. Symptomatic presentations may occur many years after sterilization [2].

Migration of tubal ligation clips into femoral hernia sacs has been described previously. Garner et al. reported Filshie clips retrieved from a femoral hernia [5], while Mumme and Cham described a migrated clip within a right femoral hernia sac in a patient with a history of multiple groin hernias [6]. In the latter case, imaging demonstrated that the left-sided tubal ligation clip remained in its expected position [6]. In contrast, the present case is distinguished by radiologically supported contralateral migration, as CT demonstrated the right-sided clip in its expected pelvic position, indicating that the clip identified within the right femoral hernia originated from the left side. Although several mechanisms may contribute to tubal clip migration, the precise mechanism of left-to-right migration in this patient remains uncertain.

The relationship between the migrated clip and femoral hernia development remains uncertain. Although retained foreign bodies may provoke local inflammatory responses, there is insufficient evidence to establish that the clip caused tissue weakening or contributed to hernia formation in this patient [2]. Given her advanced age, age-related weakening of supporting tissues represents an important alternative explanation. It is also possible that the clip became incidentally lodged within a pre-existing femoral hernia. The clip was removed during surgical repair; however, this case does not establish that clip removal reduces the risk of hernia recurrence.

Preoperative CT was valuable in identifying the migrated clip, characterizing the hernia contents, and demonstrating the right-sided tubal ligation clip in its expected position. These findings enabled recognition of contralateral clip migration before surgery. This case highlights the importance of considering prior tubal sterilization when evaluating unexpected metallic foreign bodies within the pelvis or groin. Cross-sectional imaging may assist with preoperative assessment when hernia contents or suspected foreign body migration are uncertain. However, the findings of a single case do not support recommending routine cross-sectional imaging for all women with a history of sterilization who present with groin hernias.

Conclusions

This case illustrates an unusual presentation of tubal ligation clip migration into a femoral hernia sac several decades after sterilization. CT demonstrated the right-sided tubal ligation clip in its expected pelvic position, confirming that the clip identified within the right femoral hernia originated from the left side and had migrated across the pelvic midline. The migrated clip was removed during open femoral hernia repair through an inguinal approach. However, whether the clip contributed to hernia formation or was incidentally lodged within a pre-existing hernia remains uncertain, particularly given the patient's advanced age. This case highlights the importance of considering prior tubal sterilization when evaluating unexpected metallic foreign bodies within the pelvis or groin. Cross-sectional imaging may assist in characterizing hernia contents and identifying migrated clips when clinically indicated.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

Concept and design: Laila Abrahams, Waqas Ahmad

Acquisition, analysis, or interpretation of data: Laila Abrahams, Waqas Ahmad

Drafting of the manuscript: Laila Abrahams, Waqas Ahmad

Critical review of the manuscript for important intellectual content: Laila Abrahams, Waqas Ahmad

Supervision: Waqas Ahmad

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References

1. Penfield AJ: The Filshie clip for female sterilization: a review of world experience . Am J Obstet Gynecol. 2000, 182:485-9. 10.1067/mob.2000.104620
2. Sharma S, Martyniak R, Khokhotva V: Migrated tubal ligation (Filshie) clip as an uncommon cause of chronic abdominal pain. Case Rep Surg. 2020, 2020: 10.1155/2020/4809859
3. Manton C, Horne J, Hodges V, Richardson A, Bharathan R: A systematic review of long-term complications of mechanical tubal occlusion. Eur J Obstet Gynecol Reprod Biol. 2023, 285:175-80. 10.1016/j.ejogrb.2023.04.029
4. Ryder RM, Vaughan MC: Laparoscopic tubal sterilization: methods, effectiveness, and sequelae . Obstet Gynecol Clin North Am. 1999, 26:83-97. 10.1016/S0889-8545(05)70059-0
5. Garner JP, Toms M, McAdam JG: Filshie clips retrieved from a femoral hernia . J R Army Med Corps. 1998, 144:107-8. 10.1136/jramc-144-02-12
6. Mumme AM, Cham J: Filshie clip migration with multiple groin hernias: a case report . J Med Case Rep. 2015, 9:10.1186/s13256-015-0665-x