

Laparoscopic resection of Isthmocele complicated by communicating pelvic abscess of vesico-uterine pouch

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OBJECTIVES

- Caesarean scar defects (CSD)/ isthmocele/ niche/ diverticulum/ pouch is a wedge-shaped defect in the anterior uterine wall following caesarean section. Rarely, it can lead to formation of an abscess and fistula.
- We present an interesting, rare case of a women who had an Isthmocele with a communicating deep pelvic abscess in the vesico-uterine pouch leading to severe pelvic pain and vaginal spotting.

CASE STUDY

- A 36-year-old para 3, with previous 3 caesarean sections (CS) presented to the gynaecology clinic with vaginal spotting and infra umbilical colicky pelvic pain for 3 months. She was on Mirena IUS for 15 months for postpartum contraception.
- Trans vaginal ultrasound scan (TVUS) was inconclusive. However, MRI scan revealed a bulging isthmocele at CS scar site. (Figure 1)
- A combined operative hysteroscopy and laparoscopy was performed. Hysteroscopy revealed a small bulge at CS scar suggestive of an isthmocele. Laparoscopy revealed an anteverted, anteflexed fixed uterus with a left fallopian tube adherent to anterior abdominal wall. Adhesiolysis and further exploration found a 4x2cm boggy mass in the vesico-uterine pouch suggestive of a communicating abscess. Left paravesical and vesico-uterine spaces were opened to drain altered blood from isthmocele and inspissated pus from pelvic abscess. (Figure 2)
- Bladder integrity was established and improperly placed Mirena coil was replaced. Patient had an uneventful recovery and discharged the next day, pain symptoms improved completely. Pus cultures were sterile.

DISCUSSION

- In a cross-sectional study of women with CSDs - 39.6% had chronic pelvic pain and 53.1% had dysmenorrhea. Other possible causes for pain are adenomyosis, endometriosis and very rarely communicating pelvic abscesses. Currently there are no established diagnostic criteria for the diagnosis of a CSD with the majority being asymptomatic. Radiologic identification and clinical correlation, which is only done for symptomatic patients, are vital to make the diagnosis so that women may be counselled appropriately.
- Though medical treatment may be tried, surgery is the most common choice of treatment for CSD. Approaches include hysteroscopy, laparoscopy (including robotics assisted), vaginal repair, laparotomy, and combined techniques. Surgery should be only offered for symptomatic patients. There is insufficient evidence at present to offer surgery to prevent obstetric complications like uterine rupture.
- Hysteroscopy is the most reported approach for treatment of CSDs. In our case hysteroscopy was not only possible as there was no bulge seen but also may have resulted in bladder injury due to the dense adhesions with the bladder. A deep pelvic abscess requires laparoscopic drainage.
- As depicted by this case careful dissection of utero-vesical pouch to delineate the Isthmocele and the communicating abscess from each other and the uterus is key to preventing organ injury.

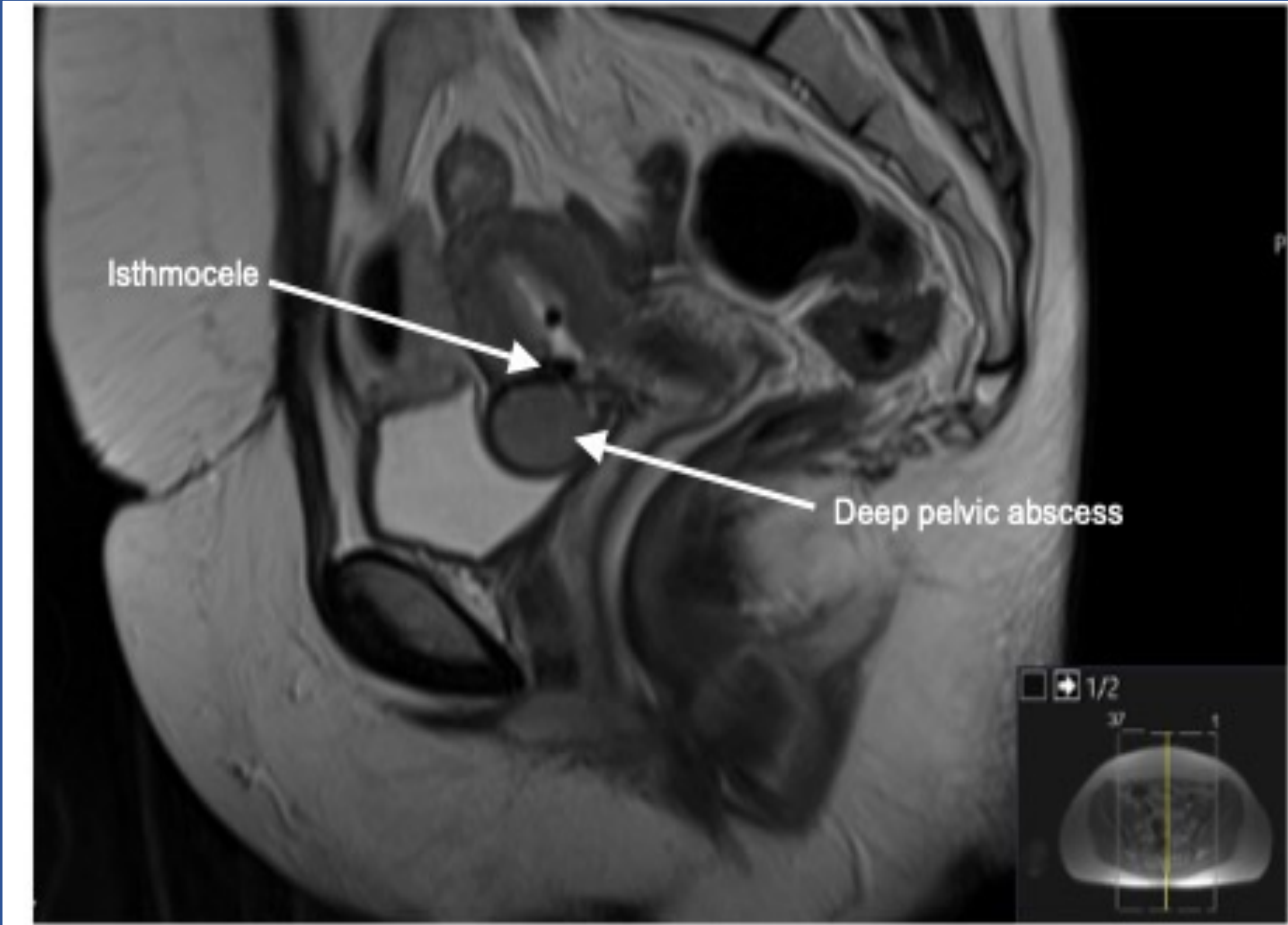


Figure 1: MRI image - Sagittal section of the pelvis

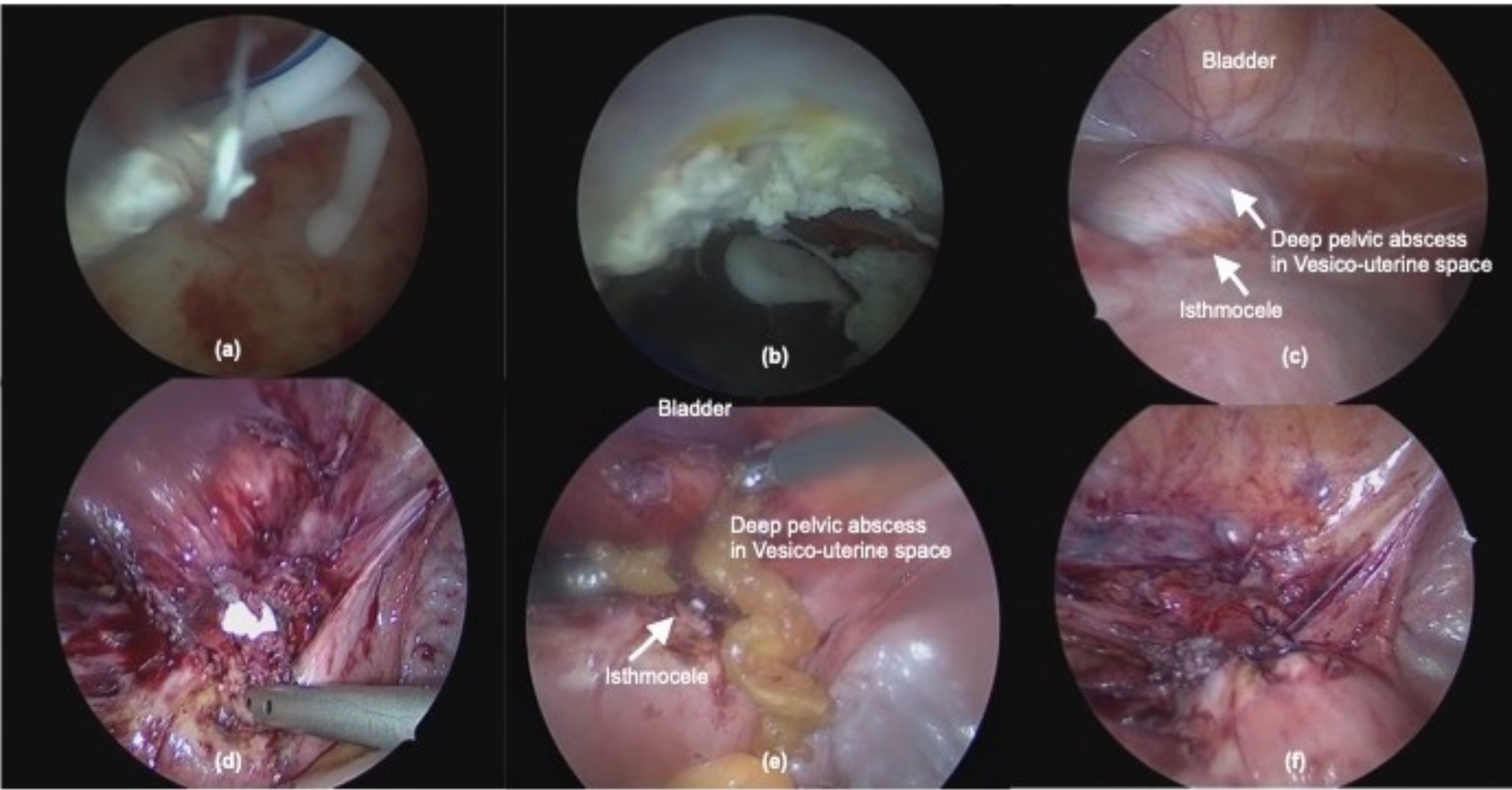


Figure 2: Hysteroscopic and Laparoscopic views of the isthmocele and communicating deep pelvic abscess in Vesico-uterine space

- a. Horizontally placed Mirena IUS: Hyesteroscopic view
- b. Fibrotic ring between anterior uterine wall and cervical canal suggesting isthmocele: Hyesteroscopic view
- c. Isthmocele and communicating deep pelvic abscess in Vesico-uterine pouch: Laparoscopic view
- d. Dissection and opening into isthmocele: Laparoscopic view
- e. Opening into abscess in Vesico-uterine pouch: Laparoscopic view
- f. Sutured CSD and final outcome: Laparoscopic view

CONCLUSION

- With the growing number of cesarean sections in modern obstetric practice, the sequelae and complications of CSDs are more likely to be encountered by gynaecologists.
- The most common symptom of CSD is AUB mainly as postmenstrual spotting. However, patients can present with pain, infertility, scar ectopic pregnancies, and more rarely abscess, and fistula formation.
- It is therefore important to be mindful of these types of presentations. This case reports discusses the presentation, imaging, surgical findings, and laparoscopic treatment of an isthmocele which communicated with an abscess in the uterovesical pouch.
- More studies need to be done to establish the diagnostic features of CSDs and the optimal routes and steps of management which would be required in the future.