

Predstavitev primera: Pelvični absces kot zaplet carskega reza in histerektomije

Case report: Pelvic abscess after cesarean section and hysterectomy

Avtor / Author

Klavdija Krajnc¹, Iztok Takač^{1,2}, Faris Mujezinovič^{1,2}, Matjaž Horvat³, Lucija Kuder¹

Ustanova / Institute

¹Univerzitetni klinični center Maribor, Klinika za ginekologijo in perinatologijo, Maribor, Slovenija; ²Univerza v Mariboru, Medicinska fakulteta, Katedra za ginekologijo in porodništvo, Maribor, Slovenija; ³Univerzitetni klinični center Maribor, Klinika za kirurgijo, Oddelek za abdominalno in splošno kirurgijo, Maribor, Slovenija;

¹University Medical Centre Maribor, University department of Gynecology and Perinatology, Maribor, Slovenia; ²University of Maribor, Faculty of medicine, Department of Gynecology and Obstetrics, Maribor, Slovenia; ³University Medical Centre Maribor, University department of abdominal and general surgery;

Ključne besede:

pelvični absces, zapleti pri histerektomiji, carski rez, poporodna krvavitev

Key words:

pelvic abscess, hysterectomy complication, cesarean section, postpartum bleeding

Članek prispel / Received

11. 2. 2018

Članek sprejet / Accepted

14. 11. 2019

Naslov za dopisovanje / Correspondence

Klavdija Krajnc, dr. med., Univerzitetni klinični center Maribor, Klinika za ginekologijo in perinatologijo, Ljubljanska 5, 2000 Maribor, Slovenija
Telefon +386 23212450
E-pošta: klavdija.krajnc@ukc-mb.si

Izvleček

Namen: Namen prispevka je predstaviti primer pelvičnega abscesa, ki je sledil urgentnemu carskemu rezu in histerektomiji, izpostaviti rizične dejavnike in opisati minimalno invazivno tehniko drenaže abscesa.

Poročilo o primeru: V primeru predstavljamo 30-letno bolnico (gravida 35 4/7), pri kateri je bil opravljen urgentni carski rez. Zaradi atonije maternice in diseminirane intravaskularne koagulopacije je prišlo do obsežne krvavitve, ki se je ni dalo ustaviti s konzervativnimi pristopi. Čez nekaj dni se je postoperativno okrevanje zapletlo z razvojem abscesa.

Zaključek: Čeprav je pelvični absces redke zaplet ginekoloških operacij, moramo diferencialno diagnostično ob znanih nepojasnene okužbe pomisliti tudi nanj. V predstavljenem primeru smo absces, ki je nastal kot posledica obsežne

Abstract

Purpose: The purpose of this article was to present the case of a pelvic abscess, which developed after an emergency cesarean section followed by a hysterectomy, to identify the risk factors, and describe a minimally invasive technique for abscess drainage.

Case report: We present a 30-year-old patient at 35 + 4 weeks gestation who had an emergency cesarean section. The indication for the cesarean section were four previous cesarean sections. She had severe postpartum bleeding due to uterine atony and disseminated intravascular coagulopathy, which did not resolve with conservative treatment. A few days later, a pelvic abscess formed and complicated the post-operative recovery.

Conclusion: A pelvic abscess is a rare complication following obstetrics surgery; however, it is important to take

krvavitve in okužbe, drenirali z razprtjem enega izmed šivov na krnu vagine in se z minimalno invazivnim postopkom izognili ponovni operaciji.

it into account when there are unexplained symptoms of inflammation. The abscess developed as a consequence of severe bleeding and infection and was drained by opening one of the vaginal cuff stitches, which avoided an invasive surgical procedure by using a minimally invasive procedure.

INTRODUCTION

A pelvic abscess represents the ultimate stage of an infection within the pelvic cavity, and occurs as a complication in 1 % of patients after obstetrics surgery (1).

Typically, a pelvic abscess presents with symptoms of systemic inflammation, lower abdominal pain, vaginal bleeding, a vaginal discharge, or dysuria.

The physical exam typically shows a diffusely tender pelvis, a palpable, fluctuant mass, elevated inflammatory markers, and a collection of free fluid on vaginal or abdominal ultrasound, CT, or MRI (2). When the diagnosis is confirmed, the patient should receive parenteral broad-spectrum antibiotic therapy. The drainage should be minimally invasive, if possible, and performed via ultrasound or CT guidance. A laparoscopy or laparotomy might be required (3, 4).

CASE PRESENTATION

A 30-year-old female with a history of a complete placenta previa at 35 + 4 weeks gestation presented with mild vaginal bleeding of 1 h duration. It was her 10th pregnancy; she had four cesarean sections and five spontaneous abortions.

A speculum examination revealed mild bleeding, the cervical canal was fully closed, and a fetal heartbeat was heard with the Doppler fetal monitor. The laboratory results showed a low hemoglobin concentration, and the fibrinogen and D-dimer levels were elevated. After 1 day of hospitalization, the mild anemia progressed to severe, thus, an emergency cesarean section was indicated. She received cephazolin prophylactically and uterotonic agents (syntocin [10 IU] and carboprost [250 µg]).

She developed post-cesarean atony and in spite of a conservative approach, the bleeding continued. A total abdominal hysterectomy with bilateral salpingectomy was performed.

The blood loss was 2400 mL. After surgery, the hemoglobin decreased from 110 g/L to 51 g/L and the platelet count decreased from 228×10^9 /L to 70×10^9 /L. The thrombin time was prolonged (32 s), the D-dimer level increased from 3415 µg/L to 73,168 µg/L, and the fibrinogen level decreased from 6.05 µg/L to 0.99 µg/L.

She received fluids, concentrated erythrocytes, fibrinogen, albumin, and analgesics. We continued the administration of the antibiotic.

Four days later, the patient began to experience mild abdominal pain. In the evening, she had a fever and the markers of inflammation were elevated. We ordered a blood culture and switched the antibiotic to piperacillin/tazobactam.

An abdominal ultrasound showed free fluid in the paracolic gutter. An abdominal CT showed signs of peritonitis and free fluid in the rectosigmoid junction. An iatrogenic rectosigmoid injury was suspected, which was ruled out by irigography. A gynecologic ultrasound showed a collection of fluid (8 x 5 cm) located superior to the vaginal cuff.

Nine days after surgery, revision surgery was performed. We used the vaginal approach to enter the abdominal cavity. We examined the vaginal cuff by speculum, removed one of the sutures, and aspirated 150 mL of hemorrhagic-purulent fluid. A microbiological smear was obtained. Through the opening of the vaginal cuff, we inserted a Foley catheter into the abdominal cavity, after which the patient felt better. Over the course of the next week, the CRP decreased from 279

mg/L back to a normal value.

The drainage tube was removed after 7 days, and 15 days after delivery, a follow-up gynecological ultrasound revealed no pathologic findings.



Figure 1. CT with the contrast, axial view. A – free fluid at the rectosigmoid junction



Figure 2. CT with the contrast, sagittal view. A – thickening of the peritoneum, B – formation of a suspected abscess, C – free air

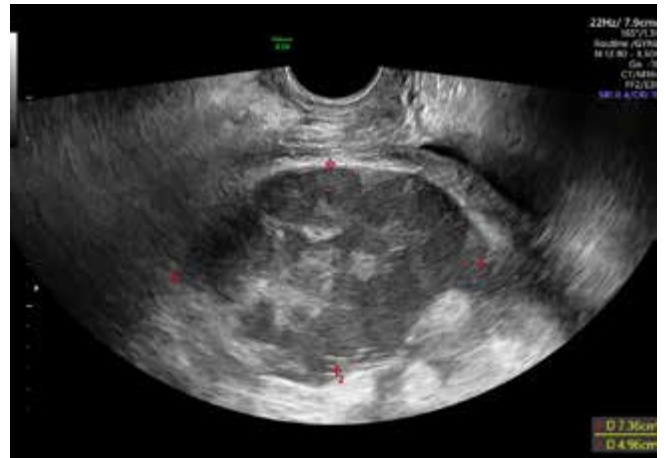


Figure 3. A gynecological ultrasound examination showed an abscess, located above the vaginal cuff, diameter: 7.36 cm x 4.96 cm

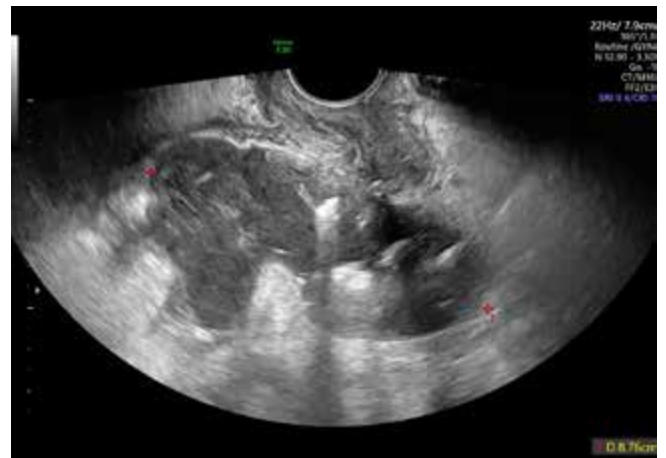


Figure 4. A gynecological ultrasound; pelvic abscess located above the vaginal cuff, diameter: 8.76 cm



Figure 5. A follow-up ultrasound, 6 days after the drainage

DISCUSSION

Like any medical procedure, gynecologic surgeries come with some risks and potential complications, the most common of which are surgical site infections, endometritis, and iatrogenic injuries (1). Pre-operatively, our patient received a broad-spectrum antibiotic for routine prophylaxis.

Retrospectively, we can focus on four risk factors that contributed to the abscess formation: a previous cesarean section; peri-operative blood loss > 1500 mL; blood transfusion; and an emergency cesarean section (1, 4).

For our patient, her fifth cesarean section was complicated by a complete placenta previa, which led to the vaginal bleeding. The post-cesarean atony resulted in a hysterectomy and we observed laboratory signs consistent with disseminated intravascular coagulopathy. Consequently, she received appropriate treatment, including a blood transfusion, which is another risk factor for the formation of an abscess (1, 5-7).

After the onset of symptoms and a CT scan, a vaginal ultrasound revealed the underlying abscess, which required drainage. The standard management of a pelvic abscess requires a minimally invasive technique, such as non-surgical percutaneous drainage, laparoscopic surgery, or transvaginal catheter placement (8). Because she had a hysterectomy and the abscess was located at the vaginal cuff, we decided to re-open one of the stitches and drain the fluid through the opening.

CONCLUSIONS

Even though a pelvic abscess is a rare complication of obstetrics surgery, some cases are encountered. After diagnostic confirmation by sonography and CT scan, it is a challenge to treat a pelvic abscess using minimally invasive surgery.

REFERENCES

1. Al-Abdullah N, Kaki R. Post Cesarean Section Pelvic Abscess: Case-Control Study And Lessons Learned Following An Outbreak At A Tertiary Care Teaching Hospital. *Int J Infect Dis* 2016; 15: 1: 3-7.
2. Das BB, Ronda J, Trent M. Pelvic inflammatory disease: improving awareness, prevention, and treatment. *Infect Drug Resist* 2016; 9: 191-7.
3. Akinci D, Ergun O, Topel C, Ciftci T, Akhan O. Pelvic abscess drainage: outcome with factors affecting the clinical success. *Diagn Interv Radiol* 2018; 24(3): 146-52.
4. Lachiewicz MP, Moulton LJ, Jaiyeoba O. Pelvic surgical site infections in gynecologic surgery. *Infect Dis Obstet Gynecol* 2015; 2015: 2-6.
5. Macarello KR, Matijasevich A, Barros AJD, Santos IS, Zandonade E, Silveira MF. Repeat cesarean section in subsequent gestation of women from a birth cohort in Brazil. *Reprod Health* 2017; 14: 102: 4-5.
6. Black M, Bhattacharya s, Philip S, Norman JE, McLernon DJ. Planned Repeat Cesarean Section at Term and Adverse Childhood Health Outcomes: A Record-Linkage Study. *PLoS Med* 2016; 13(3): 5-7.
7. Mylonas I, Friese K. Indications for and Risks of Elective Cesarean Section. *Dtsch Arztebl Int* 2015 Jul; 112(29-30): 489-95.
8. Ching KC, Sumkin JH. Transvaginal Drainage of Pelvic Abscesses and Collections Using Transabdominal Ultrasound Guidance. *Obstet Gynecol Int* 2015; 2015: 3-4.