

Case Report

A rare case of postpartum parietal abscess in the right lower abdomen after full term normal vaginal delivery

Vaibhav Raj Gopal*, Rohit Srivastava, Sanjay Kumar Bhat, Harendra Pankaj

Department of Surgery, Dr Ram Manohar Lohia Institute of Medical Sciences, Lucknow, Uttar Pradesh, India

Received: 21 December 2021

Revised: 13 January 2022

Accepted: 17 January 2022

***Correspondence:**

Dr. Vaibhav Raj Gopal,

E-mail: twinkle1@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Postpartum period is a crucial time both for the mother and baby. Complications during this phase can cause a lot of mental trauma and economic loss. A 36-year-old P5+0 lady presented with pain in the abdomen with fever in the second week postpartum. She had superficial right lower abdominal tenderness. Her normal vaginal delivery was uneventful. CT scan revealed a collection between the parietal layer and rectus muscle extending up to the pelvis with no intraperitoneal extension. She was managed successfully by incision and drainage with appropriate antibiotic coverage. Finally, she was discharged with no fresh complains and stable vitals. Such an unusual complication following normal vaginal delivery is very rare and seldomly reported.

Keywords: Postpartum, Abdominal wall abscess, Puerperal sepsis

INTRODUCTION

Postpartum septic complications affect 5-7% of women and are more common after caesarean delivery.¹ They account for 15% of maternal mortality according to WHO. Common manifestations include endometritis, urinary tract infections, pelvic abscess and cause a significant impact on the mother's mental health as well as a worrisome economic burden. Common organisms include *Streptococcus* group b, *E. coli* and *Klebsiella* spp.²

Few uncommon presentations of postpartum sepsis as described in literature include psoas abscess, extremity gangrene and biliary ascariasis with liver abscess.³⁻⁶ Here we present a rare case of an uncomplicated normal vaginal delivery followed by development of an anterior and lateral parietal abscess after two weeks. To the best of our knowledge, such a case has never been reported in the literature.

CASE REPORT

A 36-year-old female presented to the emergency department with complaints of continuous high-grade fever for 3 days, two weeks after full term uncomplicated normal vaginal delivery. She also complained of pain in the right lower abdomen and back associated with fever. It was not associated with any abnormal bowel habits, vomiting and any urinary complaints. Her delivery was uneventful and she did not have any foul-smelling discharge from vagina in the postpartum period. Her antenatal period was uneventful. She had no history of any chronic medical illness. Presently she was P 5+0.

On examination she was febrile, pulse rate=116 beats/min, BP=108/90 mmHg, respiratory rate=16/min. On local examination, there was fullness in the right iliac fossa and right lumbar region. There was no guarding and rigidity. Localized tenderness was present in the right iliac fossa extending to right lumbar region and back. No obvious lump was palpable. Bowel sounds were present

and normal. Per vaginal and per rectal examination revealed no significant findings.

Table 1: Investigations.

Tests	Results
Haemoglobin	9.0 g%
Total leucocyte count	16000 cumm
Liver function test	Bil: 0.8 mg%, SGOT/SGPT: 38 U/1/26 U/1, ALP: 206 U/1
Urea/creatinine	28 mg%/0.6 mg%
Random blood sugar	108 mg%
Sodium/potassium/calcium	138/4.2/4.0 mEq/l
Prothrombin time/ INR	28 sec/ 1.2



Figure 1: Ultrasound abdomen revealed fluid collection of approximately 200 cc in the lateral parietals in the preperitoneal space.

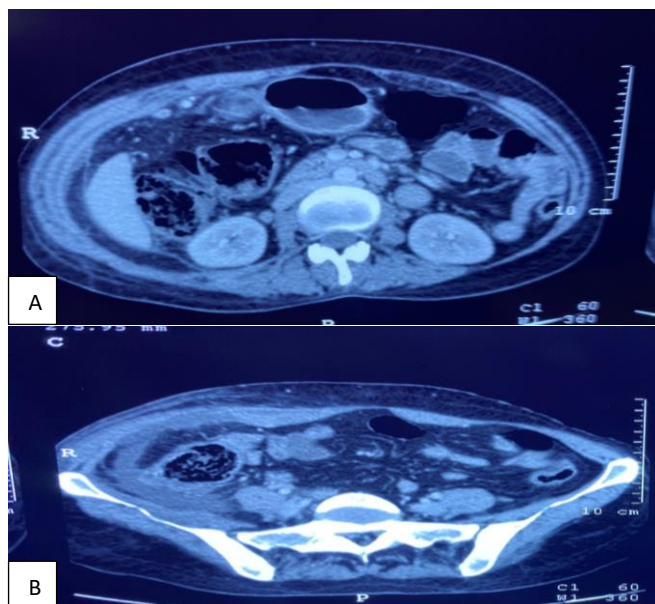


Figure 2 (A and B): CECT abdomen revealed collection along and in between parietal layer and rectus muscle extending up to pelvis with edematous adjacent ascending colon and subcutaneous fat stranding.

Treatment and follow up

Patient underwent incision and drainage under spinal anaesthesia with suction drain placement. Approximately 200 ml of pus was evacuated. Post operatively patient had an uneventful recovery with daily drain output of nearly 50 ml for 3 days which decreased to less than 15 ml subsequently. Her pus culture was sterile after 72 hours of incubation and Gene-Xpert was negative. She became afebrile on post-op day 2 and was orally allowed. She was discharged after a week with fair general condition and was advised follow up. Review ultrasound showed no residual cavity. Suction drain was removed and patient did not come after that.

DISCUSSION

Abdominal wall abscess can frequently lead to septicaemia and rapid mortality if not detected timely. It can occur due to primary bacterial infection of the wall or as an extension of the intra-abdominal pathology. Hollow viscus perforation can sometimes complicate as an anterior abdominal wall abscess. Hence a thorough work up is essential to prevent missing of a correct diagnosis. Postpartum abdominal wall abscess in the absence of an intra-abdominal sepsis after normal vaginal delivery is very uncommon and hence reported here.

Guang et al have reported a case of left anterior abdominal wall abscess secondary to fish bone ingestion resulting from bowel perforation complicating as an abscess.⁷ Similarly, Gandhi et al reported it secondary to a gall bladder perforation.⁸ Hence there need to be a causative factor for this condition that should be meticulously searched out. Rectus sheath hematoma is one clinical entity that can precipitate owing to increased intra-abdominal pressure during delivery or by manual fundal pressure/rarely even spontaneously.⁹ Koutsougeras et al have described a case of abdominal rectus muscle sheath abscess after normal vaginal delivery and attributed to ascending lymphatic infection.¹⁰ Similarly, in our case it might have been due to some unidentified trauma to the abdominal wall during delivery/ to bacterial translocation via haematogenous/ lymphatic route.

CT scan is the best modality to delineate the extent of the disease and find out primary pathology. Prompt treatment of the causative factor with drainage of abscess helps reduce the septic load and provides good results. Since in our case no definitive primary cause could be ascertained, pus evacuation was considered as the final treatment and the patient was relieved. Hence, pain in abdomen with fever in the postpartum period even after normal vaginal delivery should always be investigated properly and treated accordingly.

CONCLUSION

Puerperal sepsis can have varied presentations. Pain in abdomen in the postpartum period should not be taken

lightly and should not always be attributed to an intra-abdominal pathology. It has to be investigated deeply and prompt treatment should be given. Practising asepsis during delivery is of paramount importance to prevent such mishaps. Delivery by untrained staff/quacks should be discouraged. Proper antenatal counselling is necessary to have a smooth post-partum period in future and the couple should be motivated for incorporating family planning measures, as in our case also the female was P 5+0. Hence proper awareness of the couple and family members about safe pregnancy and delivery practices is mandatory to bring down the incidence of puerperal sepsis.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Allen VM, O'Connell CM, Liston RM, Baskett TF. Maternal morbidity associated with cesarean delivery without labor compared with spontaneous onset of labor at term. *Obstet Gynecol.* 2003;102(3):477-82.
2. Newton ER, Prihoda TJ, Gibbs RS. A clinical and microbiologic analysis of risk factors for puerperal endometritis. *Obstet Gynecol.* 1990;75(3 Pt 1):402-6.
3. Mahajan A, Gupta I, Choudhary K. Iliopsoas abscess as a cause of puerperal sepsis. *Med Pulse Int J Gynaecol.* 2019;12(2):26-30.
4. Saleh H. Post-Partum Ilio-Psoas Abscess. A Rare Case of Puerperal Sepsis with Streptococcus Agalactiae. *Am J Biomed Sci Res.* 2019;4:3.
5. Yadav V, Kulshrestha V, Sharma JB, Kriplani A. Puerperal sepsis: An unusual presentation. *Int J Clin Obstetr Gynaecol.* 2020;4(6):360-61.
6. Hamid R, Wani S, Ahmad N, Akhter A. Post-partum pyogenic abscess containing *Ascaris lumbricoides*. *Trop Parasitol.* 2013;3(1):79-81
7. Guang TN, Ci-An TG, Brian Goh KP. An Unusual Cause of Anterior Abdominal Wall Abscess. *Gastroenterology.* 2015;149:e8-9.
8. Gandhi J, Gandhi N. Abdominal wall abscess: more than meets the eye. *BMJ Case Rep.* 2010;2010:bcr08.2009.2151.
9. Eckhoff K, Wedel T, Both M. Spontaneous rectus sheath hematoma in pregnancy and a systematic anatomical workup of rectus sheath hematoma: a case report. *J Med Case Rep.* 2016;10:292.
10. Koutsougeras G, Karamanidis D, Nikolaou P, Chimonis G, Byros A. Abdominal rectus muscle sheath abscess after spontaneous vaginal delivery. A case report. *Clin Exp Obstet Gynecol.* 2005;32(3):207-8.

Cite this article as: Gopal VR, Srivastava R, Bhat SK, Pankaj H. A rare case of postpartum parietal abscess in the right lower abdomen after full term normal vaginal delivery. *Int Surg J* 2022;9:503-5.