ISSN: 2581 – 3633
PubMed - National Library of Medicine - ID: 101745081

International Journal of Medical Science and Advanced Clinical Research (IJMACR)

Available Online at:www.ijmacr.com

Volume – 6, Issue – 2, April - 2023, Page No. : 149 - 153

Postpartum Pain In Abdomen –Don't Miss Appendicitis

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How to citation this article: Dr. Akshay A. Kshirsagar, Dr. Ashish Mandot, Dr. Junaid Shaikh, Dr. Suresh Harbade, Dr. S.P. Jadhav, "Postpartum Pain In Abdomen –Don't Miss Appendicitis", IJMACR- April - 2023, Volume – 6, Issue - 2, P. No. 149 – 153.

Type of Publication: Case Report

Conflicts of Interest: Nil

Abstract

Appendicitis is one of the commonest non urogenital causes of puerperal morbidity but the diagnosis of appendicitis in postpartum period remains a dilemma for clinicians. The clinical features are atypical and there is often an overlap of symptoms with other more common urogenital and non urogenital infections in immediate postpartum period which include puerperal endometritis, urinary tract infection, adnexal torsion, tubo-ovarian abscess, ovarian vein thrombosis, septic pelvic thrombophlebitis, pyelonephritis, pneumonia and cholecystitis[1]. Appendicitis is also described as one of the causes of continued puerperal sepsis. Here we report you 2 cases of Postpartum appendicitis which we incurred in tertiary health care centre and the diagnostic delay in those cases.

Keywords: Appendicitis, Postpartum appendicitis, Peurperal sepsis, Abdominal pain , Diagostic delay.

Introduction

It is nearly 100 years since Balber stated that 'the mortality of appendicitis complicating pregnancy is the mortality of delay'[2]. Delay in the diagnosis and

treatment of appendicitis can lead to serious complications, including maternal and fetal morbidity and mortality.

The incidence rate of appendicitis during pregnancy is reported to be between 1:1250 and 1:1500 pregnancies, with 50% of cases occurring in the second trimester[2]. But it is generally reported to be between 0.1% to 0.8% of all postpartum women. However, the incidence of perforated appendicitis is higher in postpartum women than in the general population. A large population-based study found a lower incidence rate of appendicitis during pregnancy, notably during the third trimester, followed by a rebound effect particularly of perforated appendicitis peripartum and in the puerperium. These findings suggest a protective effect of late pregnancy on the development of appendicitis, and a rebound effect postpartum, similar to that seen in many inflammatory conditions[3].

The exact etiopathogenesis of postpartum appendicitis is not fully understood, but several factors have been proposed to contribute to its development. One theory suggests that the displacement of the appendix during pregnancy, along with increased pressure on the appendix by the enlarging uterus, may increase the risk of appendicitis postpartum. Additionally, the hormonal changes during pregnancy and postpartum, such as increased levels of progesterone, may lead to reduced intestinal motility and lower immune defense, making the mother more susceptible to infection and inflammation. Other possible contributing factors include changes in the microbiome and alterations in the immune response[4].

In pregnant and postpartum women, the diagnosis of appendicitis can be challenging due to overlapping symptoms with other common infections. Here we present you 2 cases of postpartum appendicitis in which the diagnosis was delayed due to dilemma between the obstetricians and surgeons.

Case 1

A 25 year old female G2P2L3 presented 2 weeks post lower segment cesarean section with complaints of pain in abdomen since 14 days, fever since 3 days and vomiting since 3 days. On examination pulse was 112/min, BP-116/70mmmHg and respiratory rate was 30/min. Per-abdomen examination revealed a soft abdomen with tenderness present in the right hypochondriac region. Her suture site was healthy and uterus was palpable at the level of umbilicus. Ultrasonography was suggestive of minimal free fluid in right ilia fossa and pelvis with visualized appendix compressible with 5.7mm diameter. A clinical diagnosis of puerperal sepsis was considered and patient was started on injectable antibiotics. However, patient did not respond and had a rising trend of TLC. A repeat ultrasonography was done which was suggestive of pelvic collection. Ultrasound guided paracentesis had a purulent collection. OnExploratory Laparotomy 200cc purulent collection with perforated subhepatic appendicitis was detected and appendectomy was performed. Uterus, fallopian tubes and ovaries were normal. Histopthology report confirmed acute inflammatory appendicitis. Post operative period was uneventful and patent was discharged on post op day 7.

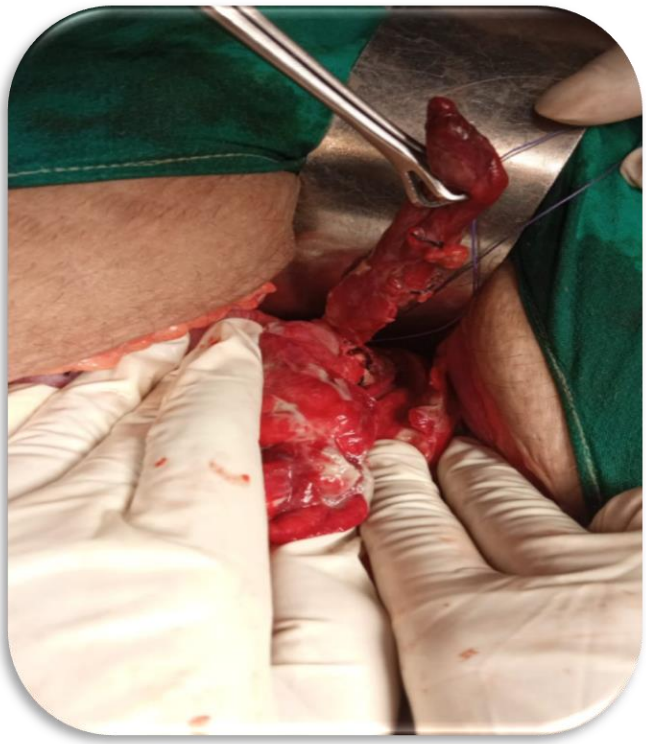

Fig. 1 : Perforated subhepatic appendix

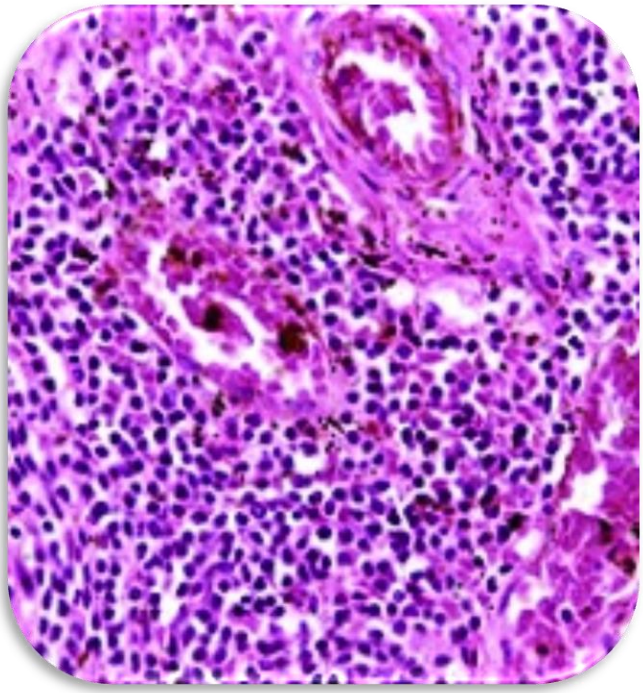

Fig. 2: Histopathology picture.

Case 2

A 22-year-old female P2L2D1 came 8 days after delivery complaining pain in abdomen and vomiting since 4 days which was relieved after taking analgesics. On examination her pulse rate was 100/min, BP-120/80mmHg and respiratory rate was 20/min. Per abdomen was soft, non tender with uterus palpable at the level of umbilicus. The ultrasound report was normal and her widal test was positive. Antibiotics were started considering typhoid as clinical diagnosis but the TLC counts kept on increasing. The patient also had episodes of fever with chills and non bilious vomiting on 12th day postpartum , a ultrasonography was suggestive of bulky uterus with mild collection in pelvis and appendix was not visualized. The treatment continued on the lines of puerperal sepsis but patient had tenderness in the right upper quadrant. A Contrast CT abdomen and pelvis was done on postpartum day 17, suggestive of Mild to moderate peripherally enhancing collection is noted in pelvis with peritonitis with clumping of bowel loops towards RIF without any extraluminal air foci. Patient was managed by exploratory laparotomy and there was evidence of collection with inflamed gangrenous sloughed out appendix with perforation at its shaft and base.Histopathology report confirmed Aute Necrotising appendicitis.Post op patient developed suture gape which was managed by secondary suturing. Patient was discharged on Post Operative day 15.

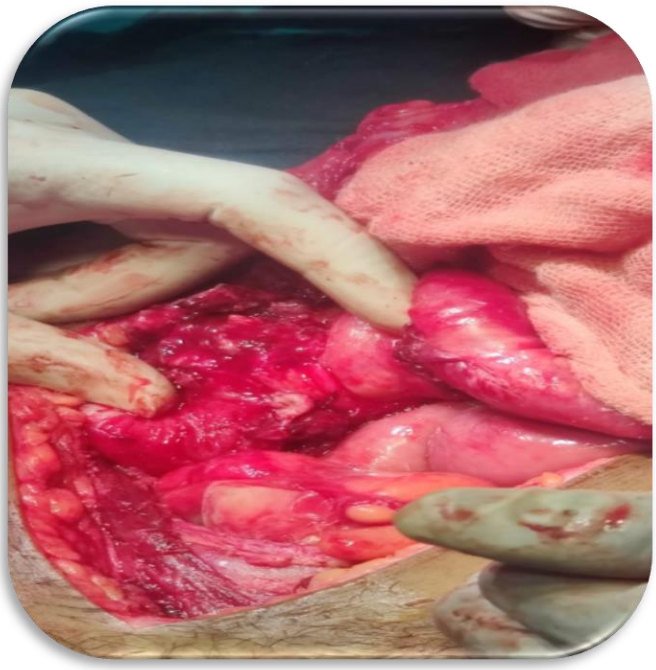

Fig. 3: Perforated Sloughed out appendix

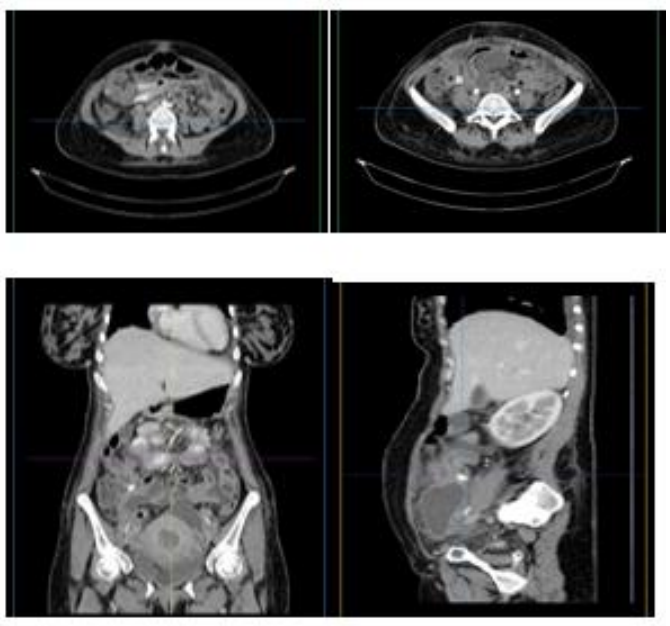

Fig. 4: Contast CT scan (Abdomen+Pelvis)

Discussion

Appendicitis is one of the most common abdominal conditions requiring surgery in pregnancy. But immediate postpartum appendicitis poses a challenge to both surgeons and obstetricians. Infections that occur in the postpartum period are assumed to be related to pregnancy or delivery. The focus of puerperal morbidity should not be limited to uro-genital causes and non-urogenital causes of sepsis should also be considered[1].

In the above cases provisional diagnosis of puerperal sepsis and enteric fever was considered and patients were managed on those lines. Even though signs and symptoms of appendicitis were present but the diagnosis of appendicitis was not considered in both the cases.

Abdominal guarding and rigidity, hallmarks of the acute abdomen, may not be present in the puerperium, likely because of decreased muscle tone of the abdominal wall. The white blood cell count and erythrocyte sedimentation rate will be normally elevated, making the diagnosis more difficult[1].

Round ligament pain, contractions, and other causes of abdominal pain can mimic appendicitis during pregnancy, and postpartum appendicitis can be confused with uterine involution, incisional pain from cesarean delivery, and urinary tract infection.

Both topographical changes in gestation, hypervascularization in utero-pelvic territories, and hyperproliferation of progesterone, facilitate the reduction of intestinal motility, lowering the immune defense power of the mother, facilitating the risks of acute appendicitis, appendicle perforation, and acute diffuse peritonitis[4].

Appendicitis in the postpartum period can be difficult to diagnose because of its frequent atypical presentation, and overlap of symptoms with other postpartum conditions. Due to this delay in diagnosis the incidence of Appendicular perforation is 2-3 times in postpartum appendicitis as compared to other population[5].

Conclusions

Appendicitis can be challenging to diagnose, especially in the postpartum period where there are many overlapping symptoms with other common infections**.**Postpartum appendicitis is usually missed as puerperal sepsis is mostly considered as a provisional diagnosis and leads to a diagnostic delay and increases the morbidity and risk of appendicular perforation. There needs a high index of suspicion for diagnosis of appendicitis in the postpartum period and early diagnosis can prevent the morbidity and mortality in these patients.

References

1. Divya Wadhawan , Seema Singhal , Nivedtia Sarda, Renu Arora; Appendicitis in Postpartum Period: A Diagnostic Challenge, ournal of Clinical and Diagnostic Research. 2015 Oct, Vol-9(10): QD10-QD11
2. J. J. S. Brown, C. Wilson, S. Coleman and B. V. Joypaul; Appendicitis in pregnancy: an ongoing diagnostic dilemma; The Association of Coloproctology of Great Britain and Ireland. Colorectal Disease, 11, 116–122, 2009
3. E. Moltubak, K. Landerholm, M. Blomberg, S. Rede´en, R. E. Andersson; Major Variation in the Incidence of Appendicitis Before, During and After Pregnancy: A Population-Based Cohort Study; World J Surg; 2020
4. Anca Daniela Brăila, Andrei-Călin Zavate, Alex Emilian Stepan, Corneliu Sabetay, Jamal Kamel, Mihai Georgescu-Brăila, Alexandru Marian Gogănău, Mircea Ovidiu Ciobanu; The acute abdomen in pregnancy and postpartum of a teenager woman. Case report; Rom J Morphol Embryol 2018, 59(3):939–943
5. Tamir IL, Bongard FS, Klein SR. Acute appendicitis in the pregnant patient. Am J Surg. 1990;160(6):571–576