

The management of anorectal abscess during pregnancy: a case report



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ABSTRACT

Introduction: Perianal and perirectal abscesses are rare in pregnant women and typically cause severe, constant pain, often accompanied by purulent rectal drainage. Diagnosis can be aided by digital rectal examination and magnetic resonance imaging (MRI). This report discusses the management of a pregnant patient with an anorectal abscess, which is a rare condition during pregnancy.

Case Presentation: We present a case of a 25-year-old pregnant woman (G1P0A0) at 37-38 weeks of gestational age with a history of sepsis due to a perianal abscess before her last menstrual period. She presented to the emergency room of Dr. Soetomo General Hospital, Surabaya, with a three-day history of fever and painful anal discharge. Magnetic resonance fistulography revealed a perianal fistula measuring 33.6 mm in length and 3.7 mm in width at the six o'clock position on the right side. The obstetric evaluation showed no uterine contractions cephalic presentation, and the fetus was at a high position. Laboratory tests indicated anemia and leukocytosis. A cesarean section was performed, delivering a male infant weighing 3,305 g with Apgar scores of 8 and 9. Subsequently, the surgical team performed drainage and debridement of the abscess.

Conclusion: Anorectal abscesses causing anal pain in pregnant women are uncommon. Timely clinical assessment and management are crucial to prevent adverse maternal and fetal health effects. Further prospective studies are warranted to evaluate the outcomes of different delivery methods in pregnant women with anorectal abscesses.

Keywords: anorectal abscess, case report, perianal fistula, pregnancy.

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INTRODUCTION

Perianal and perirectal abscesses are common anorectal problems in the population but rare in pregnant women.¹ They often originate from the occluded anal crypt glands, which results in pus collection in the subcutaneous, interspinous, or external tissues (ischioanal space or supralevator space), where various types of anorectal abscesses form.¹ In a retrospective cohort study, only 5% of pregnant women referred to a colorectal clinic with refractory hematochezia had anal abscesses or fistula.² Until recently, only a few cases of anorectal abscess in pregnant women were published in online databases.^{3,4}

These patients will complain of severe, constant pain in the anus or perirectal area, generally occurring for several days. Pain is caused by an infection in the anal glands that do not drain adequately through the anal crypts. Pain can also be

accompanied by purulent rectal drainage. On digital rectal examination, we can find a mass that fluctuates, accompanied by the abscess area with signs of inflammation. Magnetic resonance imaging (MRI) is the preferred imaging modality over the computed tomography (CT) scan since a CT scan could miss small abscesses, especially among immunocompromised individuals. Anorectal ultrasonography can also be used but is not well tolerated due to pain.¹

Perianal abscesses should prompt incision and drainage accompanied by antibiotics, despite the varied regimen according to centers. One of the drainage techniques used is the seton placement technique.⁵ A seton is a permanent piece of flexible material inserted through the fistula tract. A seton is useful if a fistulotomy is undesirable and is likely to cause significant incontinence or poor healing, especially during acute infection. In this report, we share our experience

in managing a pregnant patient with anorectal abscess and fistula.

CASE DESCRIPTION

A 25 years old pregnant woman with a first pregnancy (gravida 1) of 37-38 weeks gestational age [GA] came to the emergency room of our hospital due to 3 days of fever with painful discharge from the anal area. She had a history of sepsis due to a perianal abscess before her last menstrual period, which our surgery colleagues treated. She was discharged with oral antibiotics and pain medication. The follow-up magnetic resonance (MR) fistulography showed a perianal fistula at six o'clock from the right side, size 33.6 mm long and 3.7 mm wide. There was no plan for fistula surgery at that time.

On physical examination, her vital signs were as follows: her blood pressure was 125/88 mmHg, heart rate was 91 bpm, respiratory rate was 20x/

min, and temperature was 38.4°C. The perianal area had a fluctuating mass with signs of inflammation with oozing purulent discharge (Figure 1). Obstetric examination showed a fundal height of 29 cm, fetal heart rate of 144 beats per minute with cephalic presentation, no uterine contraction, and the lowest part of the fetus was still high. The laboratory examination results were as follows: hemoglobin of 9.1, hematocrit of 28%, leukocyte count of 18,500, platelet count of 451,000, prothrombin time of 11.4, activated partial thromboplastin time of 28.1, neutrophil to lymphocyte ratio of 17.0.

The patient was assessed as G1P0000 with 37-38 weeks singleton pregnancy with cephalic presentation, not in labor, anemia, and anorectal abscess. The pregnancy was terminated through cesarean section, delivering an infant (male, 3,305 g) with an Apgar score of 8-9. Drainage and debridement were then done by the surgery department (Figure 2). There was no microbial growth on the culture of the discharge.

DISCUSSION

We presented a case of a pregnant woman with a perianal abscess treated with incision and seton drainage at 37 weeks and five days of gestation. If left untreated, anorectal abscess can lead to severe complications such as perineal gangrene and sepsis. Appropriate clinical assessment and management should be done as soon as possible to avoid interference with maternal and fetal outcomes.

To begin, all pregnant women experiencing anal pain should have a full assessment of their clinical presentation. Pregnancy always causes morphological, physiological, and biochemical changes in women. Some of these maternal changes can give the mother a variety of discomforts, with anorectal symptoms and complaints such as anal pain (including pain during feces) or rectal bleeding caused by hemorrhoids or anal fissures becoming more common as the pregnancy develops. According to Unadkat et al., 35 percent of pregnant women reported anal pain, and 31 percent reported rectal bleeding in the third trimester, which was much higher than the previous two trimesters.⁶ Our patient complained of anal pain and



Figure 1. Visual inspection of perianal abscess with oozing purulent discharge.



Figure 2. Post-surgical abscess drainage and debridement with a seton drain

purulent discharge in the area around the anus at 37-38 weeks of gestation, but the cause of the symptoms was from the anorectal region. While uncommon, anorectal abscess is an important differential diagnosis in pregnant women with anal pain.

A perianal abscess should be treated as soon as possible with incision, drainage, and appropriate medicines.^{7,8} Some abscess diseases, such as systemic sepsis or large abscess, require surgery under anesthesia to ensure diagnostic diagnosis

and adequate drainage. To decrease the length of any potential fistula, the draining should be performed as close to the anus as possible. In addition to drainage, an abscess can be prevented from recurring by inserting a drainage catheter or installing a seton.⁷ Setons are used in two applications: drying and cutting.⁷ Seton drainage allows for long-term drainage of the abscess cavity and fistula tract, minimizing the number of sepsis episodes, diminishing the cavity, and promoting tract fibrosis. The pain usually diminished and healed

in 3-4 weeks following successful abscess drainage.

A meta-analysis found that combining incision and drainage with fistula surgery reduced the probability of abscess recurrence, permanent fistula, or repeat surgery by 87% (95% CI 76-93%, six studies, 479 patients).⁸ Opponents of primary fistulotomy, on the other hand, claimed that only two-thirds of abscesses developed to fistula and that primary fistulotomy may increase the risk of fecal incontinence.^{7,9,10} The patient had previously been diagnosed with sepsis as a result of a perianal abscess and treated with incision and drainage but no primary fistulotomy. She was discharged with oral antibiotics, and an MR fistulography confirmed a perianal fistula during the follow-up visit. However, there was no intention of fistula surgery at the time, and the patient later became pregnant. In this current episode, incision and seton placement were done as an alternative to fistulotomy, considering the risk of poor healing due to acute state and fecal incontinence. The subsequent optimal treatment for the fistula depends on the experience and judgment of the surgery team.

For pregnancy management, the patient was referred to our obstetric team. In terms of pregnancy termination, vaginal birth was still conceivable following incision and drainage of anorectal abscesses, as demonstrated by the case reported by Koyama et al., in which the patient delivered two weeks after incision and drainage with the seton drain still inserted.³ A patient with a rare horseshoe anorectal abscess also gave birth vaginally.⁴ In both cases, the patient appeared before 37 weeks (36 and 24 weeks), allowing for adequate wound healing post-incision and drainage. The fetuses were all born enthusiastically, with no symptoms or evidence of sepsis.^{3,4} There has yet to be a

study that compares the clinical outcomes (including infant outcomes, abscess recurrence, and fecal continence) of these various termination methods among pregnant women with anorectal abscesses or fistulas, so the mode of delivery may be decided on a case-by-case basis. In our situation, the patient arrived at 37-38 weeks GA with systemic indications of infection and no sign of labor, therefore the pregnancy was terminated surgically. The baby was born healthy, with no signs of sepsis.

CONCLUSIONS

Anorectal abscess is an uncommon cause of anal pain in pregnant women. Appropriate clinical assessment and multidisciplinary management should be done promptly to avoid interference with maternal and fetal outcomes. Further prospective studies are needed to assess the outcomes of these different delivery modes among pregnant women with anorectal abscesses, including infants' outcomes, abscess recurrence, and fecal continence.

AUTHOR CONTRIBUTION

All authors have contributed to this research process, including conception and design, analysis and interpretation of the data, article drafting, critical revision of the article for important intellectual content, and final approval.

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CONFLICT OF INTEREST

There are no conflicts of interest to declare.

ETHICAL CLEARANCE

None.

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