

# A Rare Clinical Image of Malodorous Vulvar Cellulitis in Pregnancy

PRADNYA SAKLE<sup>1</sup>, SARIKA KHADASE<sup>2</sup>

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A 29-year-old gravida 2, para 1 woman at 34 weeks gestation presented with complaints of vulvar swelling, erythema, foul-smelling discharge and pain for one month. Initial examination revealed localised tenderness and a malodorous discharge around the vulvar region [Table/Fig-1]. The patient reported no recent trauma or history of sexually transmitted infections. Ultrasound imaging was performed to rule out any deep-seated abscess or involvement of adjacent structures. Laboratory investigations, including a complete blood count and cultures, were conducted to identify the causative agent. Results indicated an elevated white blood cell count, and cultures confirmed the presence of a polymicrobial infection, including *Streptococcus agalactiae* and *Escherichia coli*.



[Table/Fig-1]: Malodorous vulvar cellulitis.

Considering the patient's gestational age, a multidisciplinary approach involving obstetricians and infectious disease specialists was adopted. The patient received intravenous ceftriaxone at a dose of 1 g once a day for seven days. Strict monitoring of maternal and foetal wellbeing was carried out with regular ultrasound assessments. The patient was advised on the importance of strict hygiene practices. She was discharged five to seven days after treatment, having responded well to antibiotic therapy, which resulted in a reduction of vulvar erythema, oedema and malodour. Foetal monitoring showed no signs of distress and there were no adverse effects noted. The patient was discharged with a prescription for oral antibiotics, to be taken twice a day for seven days, and was scheduled for regular follow-up.

## DISCUSSION

The condition is a variant of vulvar cellulitis, which is a bacterial infection affecting the soft tissues of the vulva. However, when it occurs during pregnancy, it can pose unique challenges and

considerations. Pregnancy is associated with various physiological changes in a woman's body, including alterations in the immune system and hormonal fluctuations [1]. These changes may contribute to an increased susceptibility to infections. Malodorous vulvar cellulitis manifests as redness, swelling and tenderness in the vulvar area, accompanied by a noticeable and unpleasant smell.

A similar case was reported in a 22-year-old primigravida with 23 weeks of gestation developed significant spontaneous vulvar oedema. She complained of increasing symptoms and discomfort, prompting a decision to use an invasive technique for treatment after ruling out any significant causes of the vulvar oedema. The patient had a successful, problem-free labour after the procedure and the oedema subsequently resolved. The purpose of this report is to inform physicians that when the symptoms of pregnant patients intensify, drainage should be considered as a treatment option [2].

The primary causative agents of malodorous vulvar cellulitis are usually bacterial, with Group B *Streptococcus*, *Escherichia coli* (*E. coli*), and other common bacteria being potential culprits [3]. The diagnostic process involves a thorough clinical examination, assessment of medical history and laboratory tests to identify the causative bacteria and determine the most effective course of treatment [4]. Treatment typically involves a combination of antibiotics, local hygiene measures, and, in severe cases, hospitalisation [2]. It is crucial to address the infection promptly to prevent complications that may affect the overall wellbeing of the pregnant woman and her unborn child [5]. Tissue biopsies are rarely performed for confirmation of diagnosis; however, in some instances-especially those with atypical clinical presentations, cases that are refractory to treatment, or less common conditions-tissue biopsies play an important diagnostic role [6].

Malodorous vulvar cellulitis in pregnancy requires a comprehensive approach to diagnosis and management, considering the unique challenges posed by the gravid state. Prompt recognition, appropriate antibiotic therapy and close maternal-foetal monitoring contribute to favourable outcomes, emphasising the importance of a multidisciplinary team in the care of pregnant individuals with infectious conditions.

## REFERENCES

- [1] Soong D, Einarson A. Vaginal yeast infections during pregnancy. *Can Fam Physician*. 2009;55(3):255-56.
- [2] Trang VAV, Pham TNN, Le BH, Truyen TTTT, Trinh HKT, Le KM, et al. When intervention becomes imperative: A case report of spontaneous vulvar edema during pregnancy. *AJOG Glob Rep*. 2024;4(2):100339.
- [3] Yoon TY, Jung SK, Chang SH. Cellulitis due to *Escherichia coli* in three immunocompromised subjects. *Br J Dermatol*. 1998;139(5):885-88.
- [4] Fulton II MR, Zubair M, Taghavi S. Laboratory Evaluation of Sepsis. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 [cited 2024 Dec 23]. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK594258/>.

[5]

Simple Steps to Prevent Infections During Pregnancy. HealthyChildren.org [Internet]. 2021 [cited 2024 Dec 23]. Available from: <https://www.healthychildren.org/English/ages-stages/prenatal/Pages/Simple-Steps-to-Prevent-Infections-During-Pregnancy.aspx>.

[6]

Yudin MH, Money DM. Infectious diseases committee. Screening and management of bacterial vaginosis in pregnancy. J Obstet Gynaecol Can. 2008;30(8):702-08. English, French. Doi: 10.1016/S1701-2163(16)32919-X.

PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of Obstetrics and Gynaecology, Smt. Radhikabai Meghe Memorial College of Nursing, Datta Meghe Institute of Higher Education and Research Centre, Wardha, Maharashtra, India.
2. Nursing Tutor, Department of Mental Health Nursing, Smt. Radhikabai Meghe Memorial College of Nursing, Datta Meghe Institute of Higher Education and Research Centre, Wardha, Maharashtra, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Pradnya Sakle,  
Assistant Professor, Department of Obstetrics and Gynaecology, Smt. Radhikabai Meghe Memorial College of Nursing, Datta Meghe Institute of Higher Education and Research Centre, Wardha, Maharashtra, India.  
E-mail: [pradnya2sakle@gmail.com](mailto:pradnya2sakle@gmail.com)

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