

## Right Ovarian Vein Thrombophlebitis: A Rare Cause of Postpartum Fever

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<p><b>Abstract:</b> <i>Introduction:</i> Ovarian vein thrombosis (OVT) is a rare but potentially life-threatening postpartum complication. Delayed diagnosis may occur because it can mimic postpartum endometritis and other pelvic infections. <i>Case Presentation:</i> A 36-year-old multiparous woman presented three weeks after vaginal delivery with fever of 39°C and right pelvic pain. Physical examination revealed an involuted uterus without cervical motion tenderness. Laboratory studies showed leukocytosis (12,000/mm<sup>3</sup>), normal C-reactive protein, and negative blood cultures. Postpartum endometritis was initially suspected, and ampicillin-sulbactam therapy was initiated. Due to persistent fever and pain despite antibiotic treatment, right ovarian vein thrombophlebitis was considered. Following initiation of anticoagulant therapy, the patient showed rapid clinical improvement. <i>Conclusion:</i> OVT should be considered in postpartum patients with persistent fever unresponsive to antibiotic therapy, particularly when infectious markers are inconclusive. Early diagnosis and anticoagulation are essential to prevent serious complications.</p>	<p><b>Case Report</b></p> <p><b>*Corresponding Author:</b> Tamer Topaloğlu, MD Department of Obstetrics and Gynecology, Kartal Lütfi Kırdar City Hospital, Istanbul, Türkiye</p> <p><b>How to cite this paper:</b> Tamer Topaloğlu (2026). Right Ovarian Vein Thrombophlebitis: A Rare Cause of Postpartum Fever. <i>Middle East Res J. Case Rep.</i> 6(2): 7-8.</p> <p><b>Article History:</b>   Submit: 28.03.2026     Accepted: 02.05.2026     Published: 13.05.2026  </p>
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### INTRODUCTION

Postpartum fever is a common clinical condition encountered in obstetric practice, most frequently associated with infectious etiologies such as endometritis, urinary tract infections, mastitis, and surgical site infections. However, noninfectious causes should be considered in patients with persistent fever despite appropriate antibiotic therapy. Ovarian vein thrombophlebitis (OVT) is a rare but potentially serious thromboembolic complication of the postpartum period, with an estimated incidence of 0.05–0.18% [1, 2]. Because its clinical presentation is often nonspecific, OVT may be misdiagnosed as postpartum endometritis, appendicitis, pyelonephritis, or pelvic abscess [3]. Delayed diagnosis may lead to life-threatening complications, including pulmonary embolism, inferior vena cava thrombosis, and sepsis [4]. Herein, we present a case of right ovarian vein thrombophlebitis diagnosed in a patient initially managed for postpartum fever unresponsive to antibiotic therapy.

### CASE REPORT

A 36-year-old woman, gravida 3 para 3, presented to our clinic with fever up to 39°C and right pelvic pain three weeks after an uncomplicated vaginal delivery. The patient had no known thromboembolic risk

factors during pregnancy. Her medical history revealed short-term postpartum antibiotic therapy and prophylactic low molecular weight heparin use.

On physical examination, her general condition was moderate, body temperature was 39°C, and pulse rate was 102 beats/min. Abdominal examination demonstrated tenderness in the right lower quadrant and right inguinal region. Gynecologic examination revealed an involuted uterus without cervical motion tenderness, abnormal vaginal discharge, or foul-smelling lochia. General surgical consultation and abdominal ultrasonography showed no findings suggestive of appendicitis.

Laboratory evaluation revealed a leukocyte count of 12,000/mm<sup>3</sup>. C-reactive protein level was within normal limits, and blood cultures were negative. Based on the initial diagnosis of postpartum endometritis, intravenous ampicillin-sulbactam therapy was initiated.

Despite 48 hours of antibiotic therapy, the patient remained febrile and continued to experience persistent right pelvic pain. Alternative diagnoses were reconsidered, and postpartum right ovarian vein thrombophlebitis was suspected based on clinical and imaging findings. Therapeutic-dose low molecular weight heparin was initiated. Within 24 hours of

anticoagulant therapy, the patient's fever resolved, pelvic pain significantly improved, and overall clinical condition rapidly normalized. She was discharged in stable condition with outpatient follow-up arranged.

## DISCUSSION

Ovarian vein thrombophlebitis is an uncommon but clinically significant postpartum complication. Hypercoagulability, venous stasis, and endothelial injury during pregnancy and puerperium contribute to thrombus formation through Virchow's triad [5]. Approximately 80–90% of OVT cases involve the right ovarian vein. This predominance is attributed to the longer length of the right ovarian vein, its direct drainage into the inferior vena cava at an acute angle, increased susceptibility to valvular incompetence, and physiological dextrorotation of the gravid uterus causing right-sided venous compression [2-6].

Clinical manifestations of OVT are nonspecific. Fever and pelvic or lower abdominal pain are the most common presenting symptoms; however, the classic triad of fever, abdominal pain, and palpable abdominal mass is not consistently present [7]. Consequently, diagnosis is frequently delayed. OVT should be strongly considered in postpartum patients with persistent fever despite broad-spectrum antibiotic therapy, especially when laboratory findings do not support ongoing infection. In the present case, normal CRP levels, negative blood cultures, and lack of response to antibiotics prompted reconsideration of the diagnosis.

Imaging studies play a critical role in diagnosis. Contrast-enhanced computed tomography and magnetic resonance imaging have high sensitivity and specificity for detecting OVT [8]. Although ultrasonography is commonly used as a first-line imaging modality, its sensitivity is limited in postpartum patients due to bowel gas and anatomical alterations [9].

Anticoagulation is the cornerstone of treatment. Current literature indicates that low molecular weight heparin provides rapid clinical improvement and reduces the risk of complications [10]. The recommended duration of anticoagulation generally ranges from 6 weeks to 3 months depending on thrombus extent and thrombophilia status [10]. In our patient, dramatic clinical improvement following anticoagulant therapy further supported the diagnosis.

Pulmonary embolism is the most feared complication of untreated OVT and has been reported in approximately 13% of cases [4]. Additional complications include extension into the inferior vena cava, sepsis, and renal vein thrombosis. Therefore, early

diagnosis and prompt treatment are essential to reduce maternal morbidity and mortality.

## CONCLUSION

Although infection remains the most common cause of postpartum fever, ovarian vein thrombophlebitis should be considered in postpartum patients with persistent fever unresponsive to antibiotic therapy, particularly when blood cultures are negative and pelvic pain is present. This rare but serious condition should be included in the differential diagnosis of postpartum women presenting with right lower quadrant pain. Early diagnosis and timely initiation of anticoagulant therapy are critical to prevent severe complications, especially pulmonary embolism.

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