

DIAGNOSIS

This patient has an asymptomatic ovarian vein thrombosis (OVT) of the right ovarian vein. This is a rare and potentially serious condition, estimated to complicate 0.01-0.05% of deliveries.^{1,2} Thrombus formation in one or both ovarian veins results from a combination of a hypercoagulable state, venous stasis due to compression of the ovarian veins and inferior vena cava, and endothelial trauma. Women are typically affected in the postpartum period. Only 2-5% of patients develop OVT during pregnancy.^{1,2} In cases that are not pregnancy-related, the possibility of an underlying malignancy should be considered, as this constitutes the other most potent risk factor.³ Whether OVT is more frequent in females with thrombophilic disorders remains to be elucidated. Thrombophilia testing did not reveal any significant abnormalities in our patient.

Clinical signs and symptoms of this disorder, including acute lower abdominal pain and fever, are nonspecific and often resemble acute appendicitis. Asymptomatic cases (i.e., incidentally detected upon imaging) seem quite common, e.g., after vaginal or caesarean delivery or gynaecological surgery, and may be a benign condition in non-pregnant females.¹ If detected during pregnancy, however, it constitutes a risk factor for gestational complications, such as septic abortion.⁴ Other potential complications of OVT are significant as well, including thrombus extension to the inferior vena cava or renal veins, sepsis, and pulmonary embolism.

The diagnosis relies on careful examination of radiographic findings. Though pelvic magnetic resonance imaging has the highest sensitivity and specificity, computed tomography or ultrasonography with Doppler constitute proper alternatives and may be more practical in many cases.¹

Due to a paucity of data on the natural disease course and the efficacy of different treatment regimens, many questions exist regarding optimal management of OVT. Anticoagulation therapy forms the cornerstone of therapy, and treatment protocols for other types of venous thromboembolisms (e.g., deep vein thrombosis) are generally applied. In the absence of thrombus extension, infection, or pulmonary embolism, asymptomatic OVT may not require treatment, since spontaneous thrombus resolution has been observed.¹ In pregnant women, however, even asymptomatic cases warrant anticoagulation therapy in order to prevent gestational complications. Therefore, our patient was treated with low molecular weight heparin throughout pregnancy. A repeat ultrasound postpartum showed complete resolution of the thrombus, whereupon anticoagulation was discontinued.

DISCLOSURES

All authors declare no conflicts of interest. No funding or financial support was received.

REFERENCES

1. Bannow BTS, Skeith L. Diagnosis and management of postpartum ovarian vein thrombosis. *Hematology Am Soc Hematol Educ Program*. 2017;2017:168-71.
2. Rottenstreich A, Da'as N, Kleinstern G, Spectre G, Amsalem H, Kalish Y. Pregnancy and non-pregnancy related ovarian vein thrombosis: Clinical course and outcome. *Thromb Res*. 2016;146:84-8.
3. Lenz CJ, Wysokinski WE, Henkin S, et al. Ovarian Vein Thrombosis: Incidence of Recurrent Venous Thromboembolism and Survival. *Obstet Gynecol*. 2017;130:1127-35.
4. Dougan C, Phillips R, Harley I, Benson G, Anbazhagan A. Postpartum ovarian vein thrombosis. *The Obstetrician & Gynaecologist*. 2016;18:291-9.