

A Case of Postpartum Portal Vein Thrombosis

Dr Roberta Matters¹, Dr Wei How Lim^{2,3}

1. Hunter New England Health, New Lambton Heights, NSW; 2. Tamworth Rural Referral Hospital, Tamworth, NSW; 3. University of New England, NSW
Contact: roberta.matters@health.nsw.gov.au

BACKGROUND

Portal vein thrombosis (PVT) refers to complete or partial obstruction of the portal venous system due to thrombus formation¹. Cirrhosis and hypercoagulable conditions, such as malignancies, infections, and hematologic disorders, account for most cases of PVT². Although pregnancy is a condition with hypercoagulability and portal hypertension, PVT is a rare complication during pregnancy and in the postpartum period³.

CASE REPORT

A 32 year old G3P1 Caucasian woman underwent an elective repeat caesarean section at 36 weeks gestation for a monochorionic diamniotic pregnancy. Her BMI was 30.9 and her antenatal care had been unremarkable. She did not have any significant medical or surgical co-morbidities.

Post-operatively on day 1 she developed increasing pain, abdominal distension and nausea. A computerized tomography (CT) scan showed peri-pancreatic free fluid and several small filling defects in the splenic vein consistent with nonocclusive venous thrombi.

Repeat CT scan showed persistent patchy thrombosis of the splenic vein with some tiny peripheral low density foci within the liver.

The findings favoured pancreatitis with a small area of distal portal vein thrombosis. Ultrasound confirmed a non-occlusive portal vein thrombosis that may be a cause or consequence of the pancreatitis.

The patient was commenced on Rivaroxaban and had follow-up with haematology who identified Factor V Leiden heterozygous with negative prothrombin gene and negative antiphospholipid screen. She ceased anticoagulation at 6 months.

DISCUSSION

PVT is a rare complication in pregnancy and our patient had no hereditary or acquired thrombophilia. We suspect her hypercoagulable state of pregnancy was precipitated by her elective surgery, twin pregnancy and obesity.

Color Doppler ultrasonography is a noninvasive and useful modality for the diagnosis of PVT, however CT scan enables identification of the extent of the thrombosis and predisposing conditions⁴. Although there is no consensus on the treatment for PVT, anticoagulation therapy is a reasonable and beneficial treatment option, particularly in patients with acute PVT⁵.

REFERENCES

1. Bayraktar, Y., and Harmaci O.. 2006. Etiology and consequences of thrombosis in abdominal blood vessels. *World J. Gastroenterol.* 12:1165–1174
2. Ponziani, F. R., Zocco M. A., Campanale C., Rinnella E., Tortora A., Di Maurizio L., et al. 2010. Portal vein thrombosis: insight into pathophysiology, diagnosis, and treatment. *World J. Gastroenterol.* 16:143–155
3. Perarnau, J. M., and Bacq Y.. 2008. Hepatic vascular involvement related to pregnancy, oral contraceptives, and estrogen replacement therapy. *Semin. Liver Dis.* 28:315–327.
4. Chawla, Y., Duseja A., and Dhiman R. K.. 2009. Review article: the modern management of portal vein thrombosis. *Aliment. Pharmacol. Ther.* 30:881–894.
5. Hall, T. C., Garcea G., Metcalfe M., Bilku D., and Dennison A. R.. 2011. Management of acute non-cirrhotic and non-malignant portal vein thrombosis: a systematic review. *World J. Surg.* 35:2510–2520.

FIGURE 1

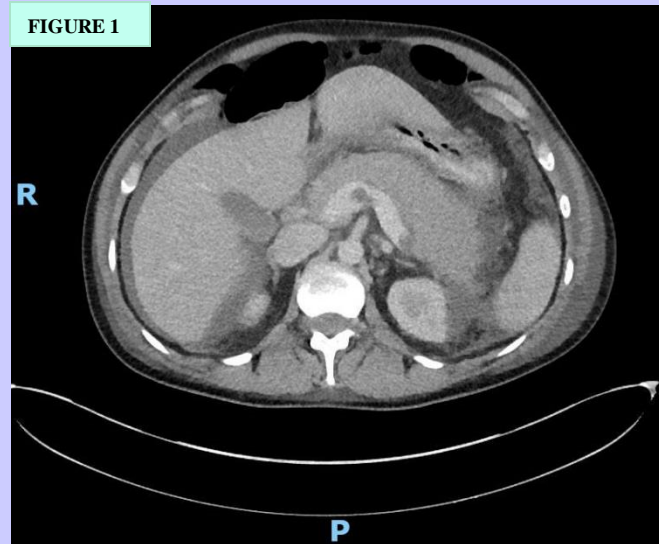


FIGURE 2

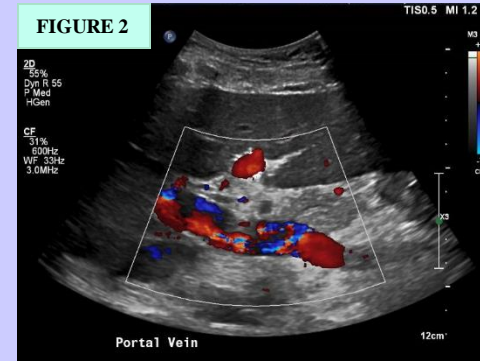


FIGURE 3

