

Bilateral Spermatic Vein Thrombosis Following COVID-19 Infection

Alfin Okullo,^{✉1} Philip Crispin,^{2,3} Daniel Gilbourd^{1,3}

¹Department of Surgery, The Canberra Hospital, Canberra, Australia ²Department of Haematology, The Canberra Hospital, Canberra, Australia

³Australian National University, Canberra, Australia

A 35-year-old male attended the emergency department complaining of bilateral inguinoscrotal pain.

Two weeks prior to presentation, he had been diagnosed with coronavirus disease-2019 (COVID-19). On day 11 following COVID-19 diagnosis he developed bilateral groin pain.

The patient's scrotal examination was remarkable for clinical grade 3 varicoceles, a finding he reported as new. There was moderate bilateral inguinal tenderness but no hernias. His blood tests showed a raised platelet count of 426 x10⁹/L (normal:150 to 400), white cell count of 9.7 x 10⁹/L (4 to 11) and haemoglobin of 146g/L. JAK2 V617F was not detected. An inguinoscrotal ultrasound demonstrated absence of flow in his spermatic veins bilaterally, with echogenic material within the vessel lumen consistent with spermatic vein thrombosis (**Figure 1**). A CT abdomen demonstrated an incidental 18mm right renal angiolipoma.

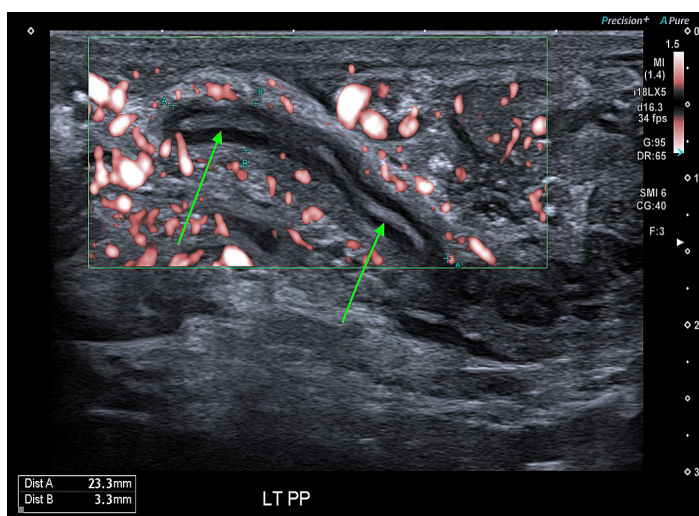
The patient was discharged with a 3-month course of rivaroxaban. At a follow-up call one month later, his pain had resolved.

Bilateral spermatic vein thrombosis is a rare diagnosis with this being only the third case reported. All previous reported cases were associated with an underlying coagulation disorder and were managed with a course of anticoagulant therapy. In our patient, the likely predisposing factor was COVID-19 infection. Myeloproliferative neoplasia was considered; however, the resolution of the mild thrombocytosis and negative JAK2 study were not supportive.

COVID-19 is associated with a pro-thrombotic state postulated to arise from the high pro-inflammatory cytokine levels. Increased platelet activation and reactive hyperfibrinogenemia contribute to the prothrombotic state.

Guidelines on the management of spermatic vein thrombosis are lacking. In view of the symptoms, embolic risk and the transient nature of the thrombotic risk factor, our patient was treated with a course of 15mg rivaroxaban twice daily for 3 weeks, and then 20mg daily for a total of 3 months.

FIGURE 1.



Key Words

COVID-19, bilateral spermatic vein, thrombosis

Competing Interests

Conflict of Interest: None declared.

Patient Consent: Obtained.

Article Information

Received on December 9, 2021

Accepted on December 11, 2021

Soc Int Urol J.2021;3(3):186

DOI: 10.48083/LMLQ3196