

Porto-Splenic Vein Thrombosis in a HIV-Positive Patient on HAART Precipitated by Recent Pregnancy

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INTRODUCTION

Thrombotic events of the portal venous system is associated with a variety of hypercoagulable factors. In this case report, we present a 36 year-old female with HIV on highly active anti-retroviral therapy (HAART) and a recent pregnancy who presented with porto-splenic vein thrombosis. We highlight the risk factors involved with this patient's particular presentation, and discuss therapeutic modalities.

CASE PRESENTATION

The patient is a 36 year-old female with:

- HIV/AIDS on HAART (lopinavir, ritonavir, zidovudine, and lamivudine).
- Recent pregnancy with vaginal delivery four weeks prior.

• The patient presented with 2 weeks duration of stable abdominal pain. There were no ameliorating or exacerbating factors. Denied any other symptoms, and no acute events were noted.

• Physical examination revealed soft abdomen with tenderness to palpation without rebound at the epigastrium and at the left upper quadrant. Guaiac was negative.

• No significant laboratory abnormalities were noted on basic chemistry, hemogram, liver function test or coagulation panel.

• CT of abdomen revealed splenic vein thrombosis extending into the portal vein (Figure 1). Superior mesenteric vein was patent. Venous collaterals were evident around the stomach.

• Hypercoagulability work-up revealed low activated protein S level (23%).

DIAGNOSTIC IMAGING

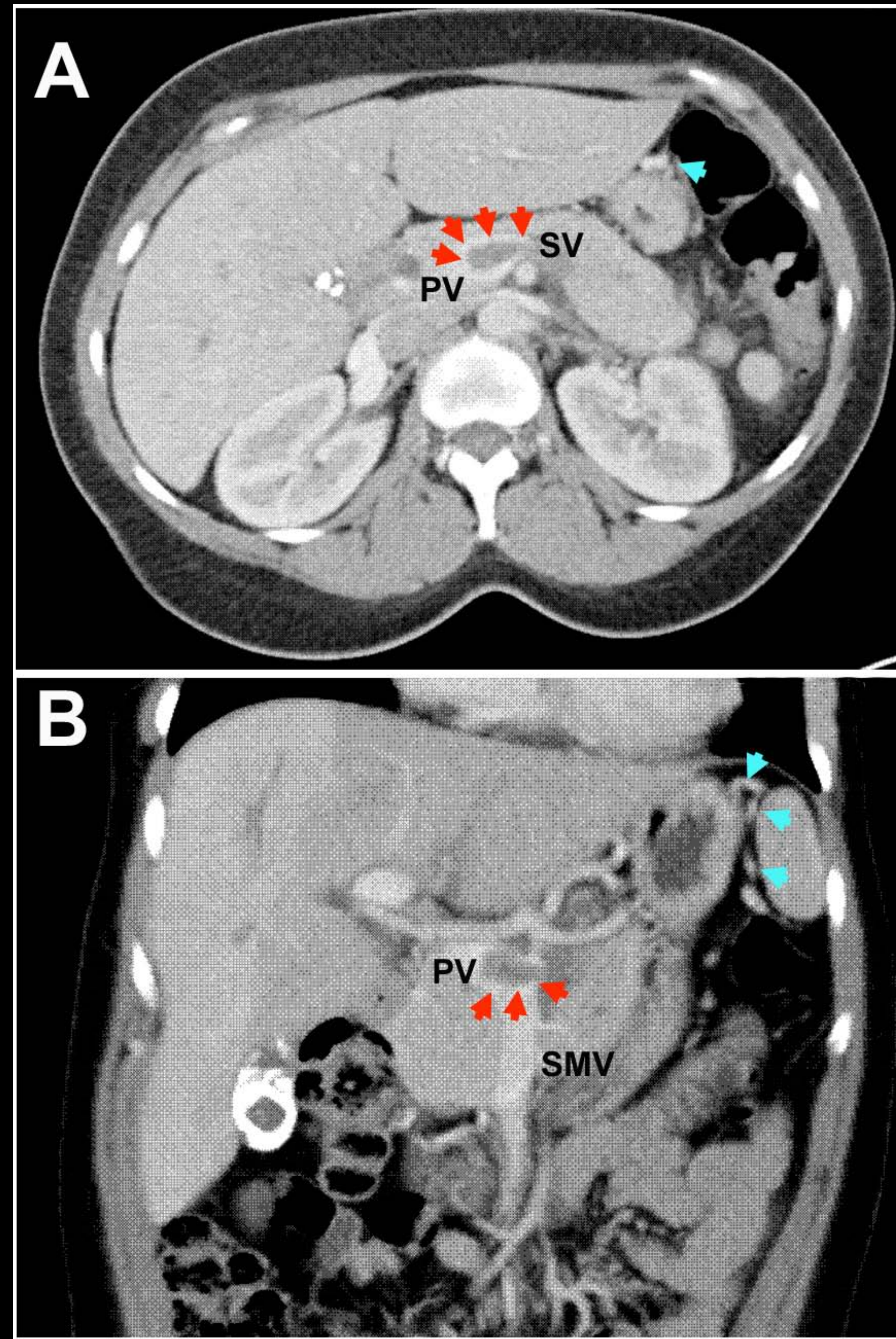


Figure 1. CT of abdomen demonstrating porto-splenic vein thrombosis. The clot (red arrowheads) extends into the portal vein (PV) from its origin in the splenic vein (SV). Venous collateral formation is apparent (blue arrowheads). superior mesenteric vein (SMV) was patent. Cross section is presented in A, and coronal view is presented in B.

TREATMENT

- The clinical and radiologic data was consistent with chronic thrombosis, especially in light of venous collateral formation.
- Surgical management, such as bypass or direct clot lysis, was ruled out at this time.
- Anticoagulation was started with enoxaparin bridged to warfarin, given no evidence of varices and no history of bleed.
- Beta-blocker therapy was also started at this time.

DISCUSSION

- The patient presented with chronic porto-splenic vein thrombosis, most likely precipitated by pregnancy, with an underlying thrombotic state from the HIV infection and its therapy.
- Activated protein S was low, but may be unreliable in the presence of a clot.

1. Pregnancy is a relatively hypercoagulable state, and peripartum portal vein thrombosis has been described.¹⁻⁴
2. HIV infection is associated with both venous and arterial thrombosis. Abnormalities to coagulation cascade have been described, with increased Factor VIII and fibrinogen levels, and with low protein S levels.⁵
3. Protease inhibitor therapy has been associated with portal vein thrombosis in several case reports.⁶⁻⁸
4. Thrombosis of the portal system can have high mortality and morbidity, with complications that can include life-threatening variceal bleed and mesenteric ischemia.

- Barring surgical intervention, decision to anticoagulate must be individualized on symptoms manifest.^{9,10}
- Addition of beta blocker is reasonable given increased hydrostatic pressure, with propensity for varices formation.

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