## Acute Portal and Superior Mesenteric Vein Thrombosis with Topical Testosterone Therapy- An Adverse Drug Event Case Report

## THIS IS HOW STUPID THESE GUYS ARE: THEY DIDN'T KNOW THAT TESTOSTERONE CONVERTS TO ESTROGEN, CAUSING THROMBOSIS.

Megan R. Adams, PharmD, Kyle D. Pijut, PharmD, BCPS \_\_\_\_\_\_, [...], and George A. Davis, PharmD, BCPS+1View all authors and affiliations

## **Abstract**

This is a case report of a 55-year-old Caucasian male prescribed topical testosterone therapy for 12 months prior to admission, when he was diagnosed with acute thrombosis in the portal vein (PVT) and superior mesenteric vein (SMV). The patient had a negative thrombophilia workup, including Factor V Leiden, Prothrombin G20210A, and JAK2 V617F mutations. There were no other pertinent laboratory markers that raised concern for the cause of thrombus. No strong familial history of venous thromboembolism (VTE) was reported during the patient's initial workup. With this in mind, the patient's use of topical testosterone therapy was considered the most likely risk factor for the PVT and SMV thrombus. During hospitalization, the patient was initiated on therapeutic anticoagulation with a heparin drip and discharged to home on apixaban for 3 months with extended therapy to be determined by outpatient hematologist. With no other identified VTE risk factors, probability that this patient's VTE was attributed to testosterone was evaluated using the Naranjo scale with a calculated score of 6, which classifies the adverse reaction as "likely." Clinicians should be aware of the possibility that topical testosterone therapy may be a risk factor for venous thrombosis in unusual sites.