

Case report on may-thurner syndrome presented in emergency department with pulmonary embolism and deep venous thrombosis post oral contraceptive pill consumption



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Case Summary:

A 42-year-old woman with a history of multi-nodular goitre, prolactinoma, endometriosis, and polycystic ovarian disease developed left leg swelling after starting oral contraceptive pills (OCPs) on August 19th. She flew to Singapore and presented with severe leg pain, diagnosed with deep venous thrombosis (DVT). OCPs were stopped, and she was discharged on Rivaroxaban. Returning to the UAE, she presented the same day with shortness of breath and chest pain. Physical exam showed left leg swelling and pitting edema. Lab tests indicated elevated D-dimer (2.52), suggesting ongoing potential thrombotic activity. Thrombophilia screening was negative. Imaging confirmed DVT involving the left iliac, femoral, popliteal veins, and posterior tibial vein. CT Angiography found a pulmonary embolism (PE). CT Abdomen/Pelvis revealed compression of the left iliac vein by the right iliac artery, causing acute thrombosis—suggestive of May-Thurner syndrome. Treatment was guided by these findings, addressing her complex condition promptly.

Management:

Patient was initially started on Enoxaparin, after diagnosis Vascular surgery was taken on board underwent Mechanical thrombolysis and angioplasty (special oblique stent). Due to large amount of contrast used, patient developed acute kidney injury creatinine raised to 1.56 (0.5-1) which was managed with oral fluid encouragement and IV fluids. Was discharged on Enoxaparin twice a day dose for 3 months.

Discussion:

MTS is an overlooked cause of Venous Thromboembolism, characterized by left common iliac vein compression from the right common iliac artery against the fifth lumbar vertebra. This anatomical variant increases left-sided DVT incidence, contributing to 2-5% of cases. Risk factors include female sex (postpartum, multiparous, or using OCPs), scoliosis, hypercoagulable disorders, and cumulative radiation exposure. MTS may associate with pelvic congestion syndrome, nutcracker syndrome, ruptured iliac vein, retroperitoneal hematoma, or anatomical variations leading to venous compression. Minimally invasive treatments like angioplasty and stenting offer relief, ensuring immediate and long-term patency. In conclusion, this case underscores the importance of early recognition of MTS, especially in women on OCPs presenting with left-sided iliofemoral DVT. The complexity of managing multiple comorbidities necessitates a multidisciplinary approach, involving emergency department teams, vascular surgeons, and specialists. Timely intervention is crucial for preventing serious complications associated with DVT and PE, emphasizing the significance of awareness and collaboration among healthcare professionals.