

FALSE-POSITIVE CT DIAGNOSIS OF DVT IN A PATIENT WITH SEVERE VENOUS SEQUELAE: A CASE OF BILATERAL CELLULITIS.

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Background:

Cellulitis is an acute bacterial infection of the dermis and subcutaneous tissue, often associated with local predisposing factors such as chronic ulcers, venous insufficiency, and diabetes mellitus. A precise differential diagnosis with deep vein thrombosis (DVT) is essential, as both conditions may present with lower limb edema, erythema, and pain. Chronic alterations of the venous system, especially in patients with previous thrombotic events or diabetic microangiopathy, can mimic DVT on radiological imaging, potentially leading to diagnostic and therapeutic pitfalls.

Case Report:

A 70-year-old male with metabolic syndrome, bifascicular block with hypertensive heart disease, hypercholesterolemia with elevated lipoprotein(a), and type 2 diabetes mellitus was admitted to our hospital for bilateral lower limb pain, edema, and fever. His medical history was significant for recurrent lower limb skin ulcers diagnosed as pyoderma gangrenosum and chronic venous insufficiency with post-thrombotic sequelae. He had previously been hospitalized at another facility, where a CT angiography of the lower limbs suggested bilateral DVT. This led to his referral to our center for further diagnostic evaluation and management. On admission, physical examination revealed signs consistent with bi-

lateral cellulitis, without evidence of ischemia or purulent collections. A lower limb venous Doppler ultrasound performed by our vascular team excluded acute DVT. Instead, it demonstrated severely compromised venous anatomy, characterized by thread-like lumens and significantly reduced flow, findings likely attributable to chronic post-thrombotic damage and diabetic microangiopathy. Broad-spectrum empiric antibiotic therapy was initiated, resulting in gradual clinical improvement. Anticoagulation therapy was not administered due to the absence of imaging-confirmed thrombosis.

Conclusions:

This case underscores the importance of thorough clinical and ultrasonographic reassessment in patients with chronic vascular disease and acute infectious symptoms. Severe structural and functional alterations of the venous system, particularly in the setting of post-thrombotic syndrome and diabetic microangiopathy, can mimic acute DVT on imaging studies. Doppler ultrasound remains the gold standard for ruling out active venous thrombosis, helping to prevent misdiagnosis and avoid unnecessary anticoagulation. Furthermore, although rare, bilateral cellulitis should be included in the differential diagnosis in patients with multiple risk factors. A careful and multidisciplinary approach is essential to ensure accurate diagnosis and appropriate management.

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