



DIABETIC MUSCLE INFARCTION: A RARE MUSCULOSKELETAL MANIFESTATION OF ENDOCRINE DISEASES

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BACKGROUND

A variety of musculoskeletal conditions have been associated with diabetes mellitus. Spontaneous infarction of muscle is a rare condition related to vasculopathic changes associated with longstanding and poorly controlled diabetes. It causes acute or subacute pain, swelling, and tenderness, typically in the thigh or calf. We report the case of a patient with longstanding and poorly controlled diabetes that presented muscular infarction in left thigh and evolved with resolution of symptoms after institution of therapy with antiplatelet agents and adequate glycemic control.

CASE REPORT

A female patient, 51 years old, complaining of pain in the entire left lower limb, more intense in the thigh, associated with edema and claudication in the ipsilateral limb that started 30 days ago. Patient has type 2 diabetes mellitus diagnosed 20 years ago, systemic arterial hypertension, hypertensive heart failure, diabetic retinopathy and chronic renal dialytic disease due to diabetic nephropathy. Physical examination showed asymmetric edema in the left lower limb, more intense in the thigh, associated with a reduction in muscle strength in the affected limb. The patient performed an ultrasonography with doppler of the limb that showed no signs of venous thrombosis. Biochemistry tests showed glycated hemoglobin of 12.6% as well as mild elevation in creatine kinase (CK) levels (223 U/L). Magnetic resonance imaging (MRI) of the left lower limb demonstrated diffuse thigh involvement with hypersignal at T2 and intermediate signal and hypersignal at T1 suggesting severe muscle edema (figure 1). The patient was treated with optimization of insulin therapy to control diabetes and with acetylsalicylic acid presenting resolution of edema and pain in the thigh.

CONCLUSION

Diabetic muscle infarction is the term used for spontaneous ischemic necrosis of skeletal muscle, unrelated to atheroembolism or occlusion of major arteries. It occurs in both type 1 and type 2 diabetes, and the majority of patients have other multiple microvascular complications. Laboratory findings are nonspecific, however, patients often exhibit elevated levels of CK. MRI with intravenous contrast enhancement appears to be the most useful diagnostic imaging technique and is the diagnostic imaging tool of choice. Muscle biopsy is not required for the diagnosis and is only necessary when the diagnosis remains in doubt despite careful clinical assessment. Treatment of diabetic muscle infarction involves optimal glycemic control, analgesia, and low-dose aspirin. We emphasize the importance of including this hypothesis within the differential diagnosis of the musculoskeletal manifestations of endocrine diseases, especially in patients with longstanding diabetes mellitus.