

Diabetic Muscle Infarction: Uncommon, but Easily Missed

¹Nadiya H.; ^{1,2}SNA Alsagoff; ^{1,2}Nur Ayuni KA; ^{1,2}Reza A

¹Department of Orthopaedic & Traumatology, Hospital Al-Sultan Abdullah UiTM, Puncak Alam, Selangor.

²Department of Orthopaedic & Traumatology, Faculty of Medicine, UiTM Sungai Buloh Campus, Selangor.

INTRODUCTION:

Diabetic muscle infarction (DMI) is a rare condition that may occur in long-standing diabetic patients. The pathophysiology is still not well understood, but the involvement of intramuscular vessels stenosis has been proposed.¹

REPORT:

A 42 year old woman with underlying diabetes mellitus (DM) and end-stage Kidney disease (ESKD) on regular peritoneal dialysis, complained of sudden onset of left calf swelling and pain while she was sleeping, and affecting her ambulation. Otherwise, there is no significant trauma and no clinical symptoms suggestive of infection.

Clinically, there is a firm ill-defined swelling over the proximal calf, with erythematous skin and tender on palpation. Range of motion (ROM) if knee and ankle are full but painful.

Blood investigation shows raised CRP, but normal white cell count and CK.

Ultrasound doppler and tissue reveals no thrombus and no collection. Though contrasted MRI is the best imaging modality to diagnose DM, we are unable to proceed with contrasted MRI due to risk of nephrogenic systemic sclerosis. Contrasted CT scan was performed instead, showing enhancement of the gastrocnemius and soleus muscles suggestive of inflammatory changes. Patient was given regular analgesics during the period. The symptoms gradually reducing without any intervention apart from rest and analgesia, and completely resolved after a month from starting of the symptoms.

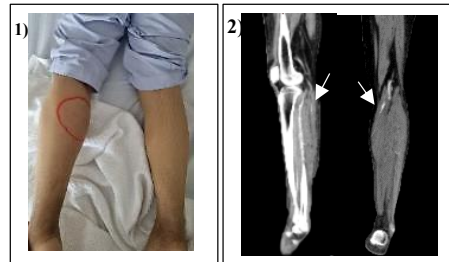


Figure 1: Red marking showing area of swelling over left calf

Figure 2: CT scan in coronal and sagittal cut showing subtle enhancement of gastrocnemius and soleus.

CONCLUSION:

Though rare, DMI must be suspected in patient with DM that presented with sudden onset limb swelling. It is a self-limiting condition with risk of recurrence. Diagnosis is based on exclusion of other condition including myositis, cellulitis, muscle tear, deep vein thrombosis, and best done with contrasted MRI. Open biopsy is not recommended as the risk of delayed healing is reported in this otherwise self-limiting condition.

REFERENCES:

1. Shridhar N. Iyer, Almond J. Drake, R. Lee West, Robert J. Tanenberg, "Diabetic Muscle Infarction: A Rare Complication of Long-Standing and Poorly Controlled Diabetes Mellitus", *Case Reports in Medicine*, vol. 2011, Article ID 407921, 4 pages, 2011. <https://doi.org/10.1155/2011/407921>