

SCLEREDEMA – AN UNDERREPORTED COMPLICATION OF DIABETES

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Abstract

Scleredema is a major dermatological complication of uncontrolled long term Diabetes Mellitus. It occurs due to increased mucin deposition along the deep dermis layers. We present a case of Scleredema diabeticorum a benign complication of Diabetes Mellitus, that mimicked angioedema which is an emergency condition. Though regarded as a benign condition it can involve the viscera and rarely can be fatal.

Keywords:

Scleredema

diabeticorum,uncontrolled

diabetes,paraproteinemias

Introduction

Scleredema is an uncommon dermatological complication of diabetes mellitus. The pathophysiology of scleredema is unknown but there is increased expression of collagen producing fibroblasts and mucin deposition in the skin of the affected individuals.(1,2) Scleredema is a misnomer because neither sclerosis nor edema is found on microscopic examination.

Scleredema is associated with infections due to streptococci,cytomegalovirus,influenza,measles,mumps etc,diabetes mellitus,paraproteinemias and trauma. The skin lesions of scleredema are ill defined,woody,non pitting,indurated plaques with 'peau d' orange' appearance distributed mainly in the upper part of the body. Rarely thighs are involved.(6) Hands and feet are spared.

Cardiac involvement in the form arrhythmias,constrictive pericarditis,cardiomyopathies has been reported.(4)

Respiratory complications include restrictive lung disease which may be fatal.

Scleredema has a remarkable association with Diabetes Mellitus, especially in long term poorly controlled DM.(1,2)

Scleredema does not respond to metabolic control.

Case report

A 58 year old female patient with 12 year history of diabetes mellitus presented with history of dryness and thickening of skin over the face and anterior aspect of neck since 2 months . She also gave history of swelling of lips,difficulty in opening the mouth,difficulty in speaking and protruding the tongue but there is no difficulty in swallowing. There is no history suggestive of heart or pulmonary disease and no history of bone pain. On examination she had thick indurated non pitting lesions over the face and anterior aspect of neck.CVS and RS examination were normal. Her FBS and PPBS were 146 and 264 respectively and HbA1C was 9.5%. Skin biopsy revealed thickened dermis and ballooning and swelling of collagen bundles. Serum protein electrophoresis was insignificant. She was treated with insulin,empirical antibiotics and physiotherapy. Symptoms improved with physiotherapy.



Figure 1. thickened erythematous indurated skin over face

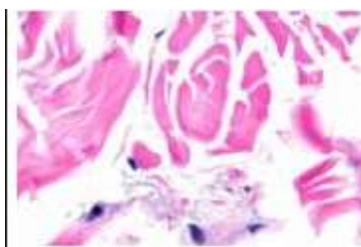


Figure 2.HPE showing thick dermis with collagen bundles separated by clear spaces,

Discussion

Scleredema is a benign dermatologic complication of long term diabetes which is underreported. This condition is not modified by metabolic control, thereby ensuing deterioration. It can be grouped into three, first one associated with infections, second with diabetes and third with paraproteinemias. (4) It is necessary to evaluate and follow up patients with scleredema, particularly elderly to rule out multiple myeloma and other paraproteinemias. Paraproteinemias can develop later after the onset of scleredema.

Involvement of tongue differentiates it from scleroderma. Systemic sclerosis, dermatomyositis and amyloidosis should be considered in the differential diagnosis. Ultrasound and MRI are useful in assessing the extent of disease, monitoring the progression and response to therapy. (6)

Rarely in patients with diabetes, post traumatic cases of scleredema have been reported with trophic skin changes. Micro angiopathy and neuropathy in DM facilitate repetitive damage. (3)

Patients should be reassured since there is no specific treatment. They should be educated for regular follow-up to diagnose paraproteinemias, cardiac and respiratory involvement in the earliest to avoid fatal outcomes.

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