

A case of adult dermatomyositis with calcinosis universalis

Mohan Roop Jayanthi, Rajender Kumar Basher, Sanjay Kumar Bhadada¹, Anish Bhattacharya, Bhagwant Rai Mittal

Departments of Nuclear Medicine and PET and ¹Endocrinology, Postgraduate Institute of Medical Education and Research, Chandigarh, India

ABSTRACT Calcinosis, although frequent in juvenile dermatomyositis is a rare finding in adults. It is more common in later phases of the disease, involving sites under chronic stress and trauma. We present a 52-year-old female patient of dermatomyositis who on single-photon emission computed tomography/computed tomography hybrid images showed exclusive subcutaneous fat calcinosis, also known as calcinosis universalis - a phenomenon that is only rarely reported in adult-onset dermatomyositis.

Keywords: Adult dermatomyositis, calcinosis universalis, hybrid single-photon emission computed tomography/computed tomography

A 52-year-old female patient with known dermatomyositis diagnosed 2 years back, presented with complaints of low backache and limitation of movements around bilateral hip joints. On examination, multiple palpable nodules were found in the region of the right arm and right gluteal region. Radiograph of the right arm showed soft tissue calcification around the right humerus. Whole-body bone scintigraphy [Figure 1] performed to assess the extent of calcinosis showed multiple areas of irregular tracer deposition in the soft tissues of right upper limb, left arm, in the bilateral gluteal region, anterior and posterior aspects of the thighs and anterior aspect of bilateral proximal part of the leg. Single-photon emission computed tomography/computed tomography images [Figure 2a-d] of the pelvis and upper part of bilateral thighs showed tracer localization to extensive calcification exclusively in the subcutaneous fat of buttocks and anterior and lateral part of thigh on both sides, with normal pelvic viscera.

Calcinosis is a well-documented manifestation seen in up to 40% of patients with juvenile dermatomyositis, but is an

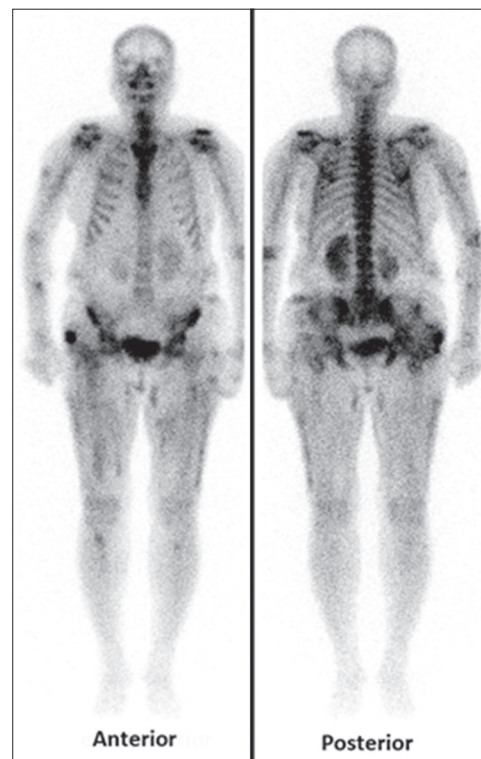


Figure 1: Tc-99m-methylene diphosphonate whole-body bone scintigraphy in anterior and posterior projections showing multiple areas of irregular tracer deposition in the soft tissues of right upper limb, left arm, in the bilateral gluteal region, anterior and posterior aspects of the thighs and anterior aspect of bilateral proximal part of leg

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Address for correspondence:

Dr. Bhagwant Rai Mittal, Department of Nuclear Medicine and PET, Postgraduate Institute of Medical Education and Research, Chandigarh - 160 012, India. E-mail: brmittal@yahoo.com

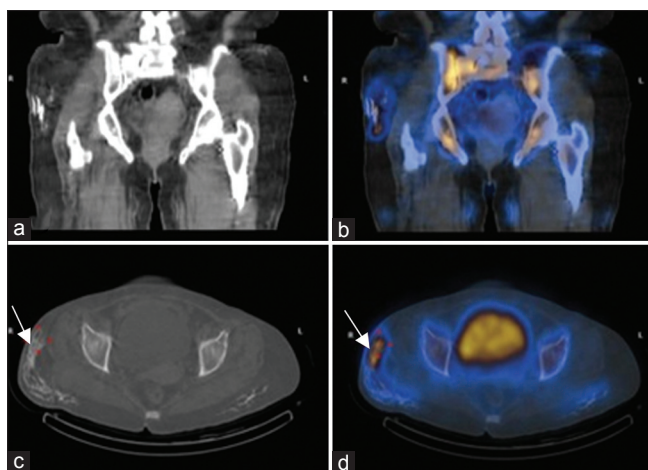


Figure 2: Single photon emission computed tomography/computed tomography (CT) (a) coronal CT, (b) coronal fused, (c) transaxial CT and (d) transaxial fused images of the pelvis and upper part of bilateral thighs showed tracer localization to extensive calcification exclusively in the subcutaneous fat of buttocks and anterior and lateral part of thigh (arrow on right sided involvement) on both sides

uncommon feature in adult-onset dermatomyositis.^[1,2] Calcinosis in connective tissue diseases is associated with persistent disease activity and disease chronicity.^[3] Calcinosis universalis is characterized by the deposit of calcium salts in skin, subcutaneous tissue, tendons and muscles without any metabolic disorder or tissue injury.^[4,5] Mechanism of these calcium deposits is not clear, but it could result from an intracellular accumulation of

calcium secondary to an alteration of the cellular membrane by traumatism and inflammation.^[6] Whole body bone scintigraphy has been demonstrated to be useful and more sensitive than plain radiographs in the detection of extraosseous calcification.^[7,8] This is a rare case of adult-onset dermatomyositis showing subcutaneous fat calcinosis exclusively.

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