



## AN ELDERLY LADY WITH MUSCLE WEAKNESS AND ANASARCA

## General Medicine

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## ABSTRACT

Dermatomyositis has Muscle weakness similar to that PM but the distinctive feature is the rash. Most often, the skin changes precede the muscle syndrome and take the form of a localized or diffuse erythema, maculopapular eruption, scaling eczematoid dermatitis, or exfoliative dermatitis. Sometimes skin and muscle changes evolve together over a period of 3 weeks or even less. Signs and symptoms may include: A reddish-purple rash around the eyelids, Red or violet bumps that form on the outside joints of the hand (Gottron papules), Red or violet bumps on the knees and elbows, Discolored skin on shoulders, neck, upper back (shawl sign), Muscle weakness starting in the arms and/or legs, Joint pain. The symptoms of dermatomyositis may appear suddenly or develop gradually. The first symptom of dermatomyositis is a skin rash that may come before or with the muscle weakness. Other organs may be affected such as the lungs and digestive tract. The muscle weakness gets worse over time and can lead to rigid joints, pain, and muscle wasting.

## KEYWORDS

Dermatomyositis, Muscle weakness with Anasarca, Polymyositis.

## INTRODUCTION

Inflammatory myositis can be classified as Polymyositis, Dermatomyositis, Inclusion body myositis, Autoimmune necrotizing myositis, Myositis associated with collagen vascular disorder, Myositis associated with malignancy. Muscle weakness similar to that PM but the distinctive feature is the rash. Most often, the skin changes precede the muscle syndrome and take the form of a localized or diffuse erythema, maculopapular eruption, scaling eczematoid dermatitis, or exfoliative dermatitis. Sometimes skin and muscle changes evolve together over a period of 3 weeks or even less. Muscle weakness similar to that PM but the distinctive feature is the rash. Most often, the skin changes precede the muscle syndrome and take the form of a localized or diffuse erythema, maculopapular eruption, scaling eczematoid dermatitis, or exfoliative dermatitis. Sometimes skin and muscle changes evolve together over a period of 3 weeks or even less.

## Case Report

A 50 year-old lady presented with complaints of weakness of all four limbs x 1 week, Associated pain in all 4 limbs for x 1 week, Generalized swelling of the whole body x 1 week duration. History of presenting illness patient was apparently normal prior 1 week after which she noticed weakness of all 4 limbs mainly affecting the proximal muscles associated with pain. She was able to walk with support from her attenders. She also had history of low grade fever, diffuse erythematous rash all over the body on direct enquiry. She gave history of dysphagia to both solids and liquids and had symmetrical joint pain of both major and minor joints of the body. No history cough with expectoration or burning micturition. No history of abdominal pain or distension. No history of chest pain or palpitations. No history of weight loss, morning stiffness of joints or photosensitivity, No history of oral ulcers, alopecia.

## Past medical History

Not a known case of Diabetes, Hypertension, Cardiac disorder, Thyroid disorder, Migraine, CVA, Seizure disorder or psychiatric illness. No history of any drug intake in the past (Statins).

Clinical Examination- General Examination On clinical examination, Patient looked ill with anasarca and diffuse muscle tenderness of both upper and lower limbs. She had a bullous rash on the left arm and ulcerative lesions on the inner thighs (image 1,2,3,4,5) BP: 130/70mmHg and Pulse Rate: 88/min Systemic Examination: CVS: S1, S2 heard No murmurs, RS: Bilateral Air Entry present, No added sounds, PA: Soft Bowel sounds heard, No organomegaly, CNS: Neurological examination revealed grade 3 proximal muscle weakness in all four limbs with neck muscle weakness of flexors more than extensors.

Image-1



Image-2



Image-3



Image-4



## Image-5



## Laboratory Investigation

Table-1

Test	Observed value	Reference value
TC	5580	4000-10,000
TLC		
Neutrophils	75.7 %	40-80%
Lymphocytes	11.4%	20-40%
Eosinophils	1.6 %	1-6%
Monocytes	10.9%	2-10%
Basophils	0.4%	0-2%
Hb	13.0gm/dl	12-15gm/dL
RBS	127mg/dL	80-120mg/dL
ESR	07mm	5-20mm
CRP	4.4	1-6mg/dL
Platelet count	1.34	1.5-4.1
AST	460IU/L	<31IU/L
ALT	260IU/L	<34IU/L
LDH	830IU/L	125-220IU/L
Urea	68mg/dL	12-40mg/dL
Creatinine	0.8mg/dL	0.6-1.1mg/dL
Urine proteins	2+	Absent
HbsAg/HIV	Negative	-----
Rheumatoid factor	Negative	-----
Anti-CCP	Negative	-----
ANA/ANA Blot	Negative	-----

CPK Levels were 5730Iu/dL (34-145)

## Imaging

An MRI of the thigh revealed evidence of inflammatory myositis. Doppler showed no evidence of DVT. An EMG could not be done due to severe subcutaneous edema.

Muscle Biopsy-A muscle biopsy revealed findings suggestive of inflammatory myositis. Diagnosis-After ruling out an infective aetiology. A diagnosis of Idiopathic Inflammatory Myositis was made.

## Management

The patient came to hospital with above mentioned complains. All routine investigation was done. BP Charting was Done. Patient was started on pulse IV methylprednisolone. However the patient rapidly deteriorated and had severe AKI due to rhabdomyolysis and hyperkalaemia.

## Discussion

Muscle weakness similar to that PM but the distinctive feature is the rash. Most often, the skin changes precede the muscle syndrome and take the form of a localized or diffuse erythema, maculopapular eruption, scaling eczematoid dermatitis, or exfoliative dermatitis. Sometimes skin and muscle changes evolve together over a period of 3 weeks or even less [1]. Signs and symptoms may include: A reddish-purple rash around the eyelids Red or violet bumps that form on the outside joints of the hand (Gottron papules) Red or violet bumps on the knees and elbows. Discolored skin on shoulders, neck, upper back (shawl sign). Muscle weakness starting in the arms and/or legs. The symptoms of dermatomyositis may appear suddenly or develop gradually. The first symptom of dermatomyositis is a skin rash that may come before or with the muscle weakness. Other organs may be affected such as the lungs and digestive tract. The muscle weakness gets worse over time and can lead to rigid joints, pain, and muscle wasting. Muscles may be stiff, sore, tender and, eventually, show signs of degeneration (atrophy) [2]. Affected individuals may experience difficulty in performing certain functions, such as raising their arms

and/or climbing stairs or develop speech and swallowing difficulties. Skin abnormalities associated with dermatomyositis often include a distinctive reddish-purple rash (heliotrope rash) on the upper eyelid or across the cheeks and bridge of the nose in a "butterfly" distribution and on the forehead and scalp. Other characteristic rashes include scaling and redness of the knuckles, elbows, knees, and/or other extensor regions (Gottron papules and sign); an abnormal accumulation of fluid (edema) in body tissues surrounding the eyes; and/or other features [3]. The symptoms of childhood (juvenile) dermatomyositis (JDM) are similar to those associated with the adult form of the disorder. However, onset is usually more sudden. In addition, abnormal accumulations of calcium deposits (calcifications) in muscle and skin tissues as well as involvement of the digestive (gastrointestinal [GI]) tract are more common in JDM. Malignancy-associated dermatomyositis appears to occur more frequently in individuals over the age 40-50. Although there is no characteristic cancer site or type, experts indicate that underlying malignancies most commonly arise in the GI tract, lungs, breast, ovary, testis, or certain white blood cells (lymphocytes) or lymphoid tissue (i.e., certain lymphomas and leukemias, multiple myeloma). The relationship between dermatomyositis and malignancies is not fully understood [4]. **Diagnosis DM/PM can be confirmed by the following 3 lab investigations** Serum Muscle enzyme concentration (CK), Typical EMG findings Muscle Biopsy. Can be supplemented with MRI to know the extent of involvement antibody testing – Antisynthetase, Anti-Mi2. **Treatment Goals** To eliminate inflammation, To restore muscle performance, To prevent chronic muscle disease, To prevent other organ system damage, To regain quality of life. **Management** IV Pulse Steroid has shown dramatic repose in acute cases [5].

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