

DAPSONE INDUCED RED MAN SYNDROME: CASE REPORTSaish Alegaonkar¹, Sunil Kumar*², Priyansh Bhayani¹ and Anuja Beralkar¹²Professor, Department of Medicine, Jawaharlal Nehru Medical College, DMIMS(DU), Sawangi(meghe), Wardha, Maharashtra, India.¹Resident, Department of Medicine, Jawaharlal Nehru Medical College, DMIMS(DU), Sawangi(meghe), Wardha, Maharashtra, India.**Corresponding Author: Prof. Sunil Kumar**

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ABSTRACT

Dapsone, an anti-inflammatory compound, is mainly used in the treatment of leprosy and a variety of blistering skin diseases. It may cause a severe adverse drug reaction with multiorgan involvement, dose-related methemoglobinemia and hemolytic anemia. Here we are reporting 50 year old man who was on dapsone for the treatment of leprosy developed red man syndrome. There is no known literature on this syndrome arising from dapsone.

KEYWORDS: Dapsone, red man syndrome, adverse reaction.**INTRODUCTION**

The red man syndrome is the most common complication of vancomycin therapy (3.7% to 47%). It is usually manifested by pruritus, an erythematous rash involving the face, neck, chest, abdomen, back and lower limbs.^[1] In milder form this reaction may be mistaken for an allergy, where patient commonly begins to experience itching and burning over the head and chest, with or without the development of a rash and the condition may go unreported.

Dapsone is the drug as part of multi drug therapy regimen instituted for treatment of leprosy patients and can lead to many cutaneous reactions like exfoliative dermatitis, multi organ involvement, dose-related methemoglobinemia and hemolytic anemia. We report a case of dapsone induced red man syndrome which is not reported yet.

CASE

A 54-year-old man who was on multidrug treatment for lepromatous leprosy for the past one week presented with history of fever associated with pruritic rash. He was not screened for diabetes mellitus and hypertension. He was non-smoker and non-alcoholic. On admission, he was febrile, pulse 96 per minute and blood pressure was 110/70 mm Hg. He had pallor and pruritic maculopapular exanthematous rash on the extremities and face. Per abdomen examination revealed hepatosplenomegaly. The other system examinations were unremarkable. Investigations revealed initially haemoglobin - 9.3 gm%, white blood cell count - 9000/mm³, erythrocyte sedimentation rate of 30 mm in

the first hour and a platelet count - 2,60000/mm³. His blood sugar and kidney and liver function test were normal. His HIV status was negative.

On skin examination, there were dry scales with redness involving trunk, buttocks, face, back and lower extremities. Skin was shiny and erythematous. (Fig) On this clinical examination diagnosis of dapsone induced red man syndrome was kept. Prednisolone 20mg per day and levocetirizine was started. Dapsone was stopped while Rifampicin and clofazimine continued. Patient started improving with the treatment.

**DISCUSSION**

Dapsone has been used as a first-line treatment for leprosy since the 1950s. This is absorbed well from the

gut and primarily metabolized through N-acetylation and N-hydroxylation.^[2] Hydroxylated metabolites are important in the pathogenesis of severe hypersensitivity that consists of fever, rash, hepatosplenomegaly and lymphadenopathy.^[2] This entity is termed as drug reaction or Drug Hypersensitivity Syndrome. Typically the symptoms begin within several weeks of commencing therapy. Red man syndrome may be part of drug reaction, an anaphylactoid type, caused by the degranulation of mast cells and basophils, resulting in the release of histamine independent of preformed IgE or complement.^[3] This entity has also been described with vancomycin, antibiotics such as ciprofloxacin, teicoplanin, amphotericin-B, and rifampicin.^[4,5] The effects of red man syndrome can be relieved by antihistamines which happened in this case as well. Physicians, especially those dealing with leprosy, dermatology and allergy department, should be aware of this rare adverse reaction that can mimic other conditions.

CONFLICT OF INTEREST: Nil.

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