

## Allopurinol induced DRESS Syndrome with Mucosal Involvement: A new Case Report

Case Report

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### Abstract

**Introduction:** The Drug Reaction with Eosinophilia and Systemic Symptom (DRESS) is a severe adverse drug-induced reaction.

**Case Report:** A 55-year-old woman who presented with oral and genital ulcerations in the setting of a maculopapular rash, fever, liver dysfunction, and hematologic abnormalities 1 month after initiating Allopurinol. The patient was diagnosed with DRESS syndrome treated with high-dose systemic corticosteroids.

**Conclusion:** The diagnosis of DRESS should be highly suspected with the presence of skin rash, liver involvement, fever, hyper eosinophilia, and lymphadenopathy despite the presence of mucosal involvement.

**Keywords:** DRESS Syndrome; Allopurinol; Mucosal; Corticosteroids.

**Abbreviations:** DRESS: Drug Reaction with Eosinophilia and Systemic Symptoms.

### Introduction

Drug Reaction with Eosinophilia and Systemic Symptom (DRESS) is a potentially life threatening syndrome including severe eruption, fever, hyper eosinophilia, and internal organ involvement. The main culprit drugs are allopurinol and carbamazepine, even though 50 drugs can induce this syndrome [1].

50% of DRESS show involvement of at least one mucosal area [2, 3]. We present a patient fulfilling the diagnostic criteria for probable DRESS with both oral and vaginal ulcerations [2].

### Clinical Case

A 55-year-old woman presented to the emergency room reporting 1 week of fever, malaise, and pruritic rash. The patient started allopurinol for asymptomatic hyperuricemia 3 weeks before symptoms onset. She stopped all medication at the beginning of rash. Clinical examination found fever, painful enlarged lymph nodes, generalized erythematous confluent maculopapular rash (Figure

1) including soles and palms, oral and vaginal ulcerations with facial edema (Figure 2). CRP, urea, creatinine, hepatic transaminases and eosinophils were elevated.

Serology for hepatitis A, B, C and HIV were negative. An ECG, chest X-ray and echocardiography were normal. According to Bocquet's criteria diagnosis of allopurinol induced DRESS syndrome was made, the drug was discontinued and oral steroids (prednisone) were started at the dose of 0.5mg/kg/day. Symptoms were regressive, the skin reaction changed into an exfoliative dermatitis. Urea, creatinine and eosinophilia normalized after 2 weeks.

### Comments

DRESS is an idiosyncratic hypersensitivity response to drugs defined by presence of at least three of the following findings: cutaneous eruption, fever, lymphadenopathy, systemic symptoms involving internal organs, haematologic abnormalities (atypical lymphocytes, eosinophilia) [3, 4]. Most frequent culprit drugs are

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**Figure 1. Maculopapular rash.****Figure 2. Oral Ulcerations.**

aromatic anticonvulsants, allopurinol, antiretrovirals, sulphasalazine, metronidazole, sulphonamides, minocycline and azithromycin. Symptoms develop 2-6 weeks after drug initiation [5]. Estimated incidence is 1/1000-1/10000 drug exposures per year. Liver involvement and haematologic abnormalities may be detected later than the skin reaction. Almost 50% of DRESS show involvement of at least one mucosal area and 1/3 facial edema [1, 2].

Skin biopsy mainly shows lymphocyte infiltration of the dermis with denser eosinophils than other drug reactions.

DRESS can lead to lethal complications, mainly hepatic failure due to liver necrosis.

DRESS due to allopurinol seems to have more renal involvement and higher mortality rate compared to other drugs (18-25%).

Crucial therapeutic step is discontinuation of the culprit drug [1-5]. Steroids are mostly administered (0.5-1 mg/kg/day).

## Conclusion

The diagnosis of DRESS should be highly suspected with the presence of skin rash, liver involvement, hyper eosinophilia, and lymphadenopathy despite the presence of mucosal involvement [1].

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