

# A Rare But Serious Entity: Corticosteroid Allergy

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**Introduction:** Systemic steroids are usually used in pulmonary medicine practise and are potential drugs in asthma less in chronic obstructive pulmonary disease (COPD) besides potential of allergy.

**Case Presentation:** We reported a sixty five years old man who had COPD for five years. The patient was hospitalised for COPD exacerbation and was treated with antibiotherapy plus bronchodilatory drugs. On the follow up when his symptoms did not decrease methylprednisolone was started. Ten minutes after the administration swelling, itchy and papular skin lesions were observed all over the body particularly on the forearms. The patient was hospitalised a few times in the same clinic and was treated with methylprednisolone several times before but he had not experienced such a situation. Urticaria is characterised with browned, swelling, itchy, edematous and papular lesions which tend to disappear within 1-2 hours.

**Conclusion:** Corticosteroids seem to be rare causes of immediate hypersensitivity reactions which can be misdiagnosed. Physicians should be carefull and identify safe alternative preparations if needed.

**Keywords:** Corticosteroid, allergy, COPD

## Introduction

Systemic steroids are usually used in pulmonary medicine practise which are potential drugs in asthma less in Chronic Obstructive Pulmonary Disease (COPD) besides rare potential of allergy and more common other side effects.

Corticosteroids may cause both immediate and delayed allergic reactions. Among these, delayed reactions to topical steroids are common whereas immediate reactions to systemic steroids are rare. There are case reports about immediate reaction to systemic

cortico-steroids (1, 2). Methylprednisolone and hydrocortisone are the most commonly implicated corticosteroids in systemic use. Here we report a sixty five years old man who had COPD for 5 years. This case report is one of those rarely seen immadiate hypersensitivity reactions to corticosteroids.

## Case Presentation

A sixty five years old man was admitted to our clinic with complaints of cough, dyspnea and purulent sputum. His physical examination revealed normal body temperature (36 C°), heart rate of 85 beats per minute, respiratory

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rate of 20 breaths per minute, blood pressure of 110/80 mm Hg, and SpO<sub>2</sub> of 85% on room air. Physical examination of the chest revealed ronchi in all lung fields. The patient was hospitalised for COPD exacerbation and was treated with antibiotherapy plus bronchodilatory drugs. On the follow up when his symptoms did not decrease methylprednisolone was administered. Ten minutes after the administration swelling, itchy and papular skin lesions were observed (Picture-1).



**Picture-1.** Fifteen minutes after the administration of methylprednisolone swelling, itchy and papular skin lesions were observed.

Lesions disappeared spontaneously a few minutes later. The patient was hospitalised a few times in the same clinic and was treated with methyl-prednisolone several times before, but such a reaction did not observed before.

## Discussion

Urticaria is characterised with browned, swelling, itchy edematous and papular lesions which tend to disappear within 1-2 hours. The incidence of corticosteroid allergy is unknown but it is probably more common than reported. In patients using multiple therapies most cases of corticosteroid allergies are usually misdiagnosed.

Recognizing corticosteroid allergy can be difficult, because its non-specific clinical presentation and the clinical signs are usually minor, or display a completely atypical chro-

nology, which is due to the anti-inflammatory properties of the corticosteroids. The entity can occur in any age and gender (3). Skin testing may provide sufficient evidence to diagnose allergy in patients with a clear history of immediate hypersensitivity to corticosteroids (4). But in those who has no previous history it is difficult to put the diagnosis as was in our case.

Our patient was a sixty five years old man who had been on follow up for COPD and had used methylprednisolone for many times but had not experienced allergic reaction before. It is therefore difficult to foresee the reaction. There is limited data in the literature, De Sousa et al described 5 cases (3) Venturini et al described 7 cases of immediate-type reactions to systemic corticosteroids (5).

In conclusion corticosteroids are rare causes of immediate hypersensitivity reactions which can be misdiagnosed. Corticosteroids should be included in differential diagnosis in patients who develop an allergic reaction during medication. Physicians should be careful and identify safe alternative treatment modalities if needed.

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