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**Case Report**

# A case report of Stevens-Johnson Syndrome, a dermatological emergency, secondary to amoxicillin-clavulanic acid use

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**Abstract** Stevens-Johnson Syndrome is a rare mucocutaneous disease in the literature associated with significant mortality and morbidity. A 29-year-old male patient was presented to the emergency department with complaints of fever, lips and mouth sores, redness in his eyes, generalized rash and pruritus. There were maculopapular lesions on the trunk, neck and extremities. He was diagnosed with acute tonsillitis five days before these rashes, and they appeared 2 days after oral amoxicillin clavulanic acid 1 gr twice a day. Due to the skin and mucosal findings, amoxicillin-clavulanic acid-induced Stevens-Johnson Syndrome was suspected. As a result, Today, safe antibiotics such as amoxicillin clavulanic acid are frequently used. However, life-threatening side effects such as Stevens-Johnson Syndrome should be kept in mind.

***Key words***
Emergency department, Stevens–Johnson syndrome, amoxicillin clavulanic acid.

## Introduction

Stevens-Johnson Syndrome (SJS) is rare but significant mortality and morbidity-related mucocutaneous disease initiated by the immune complex-associated hypersensitivity reaction.[1] It is characterized by erythematous macular lesions that progress rapidly following prodromal symptoms such as fever, weakness, headache, epidermal necrosis and detachment, erosion and crusting in two or more mucosal surfaces.[2] Common triggers include infections, vaccines and malignancies in it's etiology, the most common causes are drugs.[3] We present a case of SJS that developed after the initiation of amocillin clavulunate with the diagnosis of tonsillitis on a 29-year-old patient.

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## Case report

A 29-year-old male patient was presented to the emergency department with complaints of fever, lips and mouth sores, redness in his eyes, generalized rash and pruritus. In his physical examination, hyperemia, chemosis, palpebral edema and bilateral mucopurulant conjunctivitis were present in his eyes and conjunctiva. There were vesicular and aphthous lesions on the tonsils in the oropharynx and eroded areas formed by vesicles and blisters in the mouth and lip. There were maculopapular lesions on the trunk, neck and lower and upper extremities. The patient had no past medical history. He was diagnosed with acute tonsillitis five days before these rashes, and they appeared 2 days after oral amoxicillin clavulanic acid 1 gr twice a day. The rash was reported to be accompanied by cough, limited range of motion, and mild fever. On physical examination, her blood pressure was

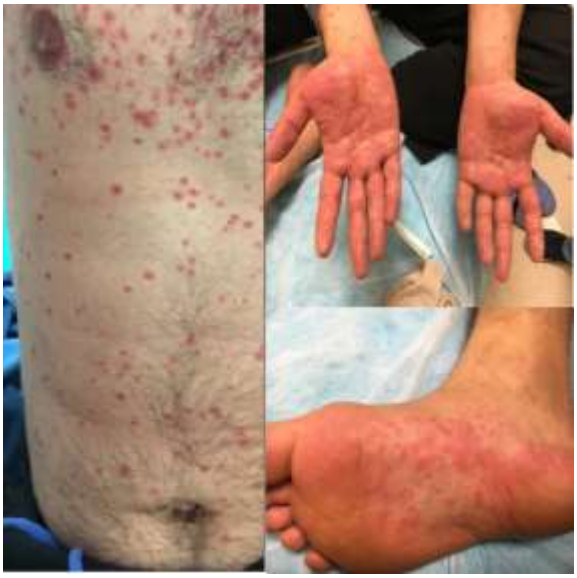

**Figure 1** Erythematous maculopapular lesions of different diameters demonstrated on patient's body.

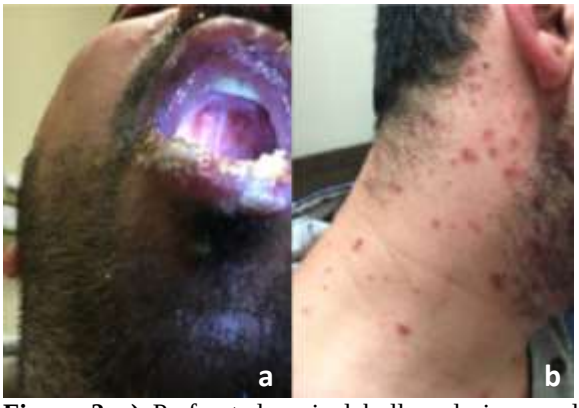


**Figure 2 a)** Perforated vesiculebullose lesions and erozives regions demonstrated on the patient's mouth and lips. **b)** Erythematous maculopapular lesions on the neck.

100/ 60mmHg, pulse was 120/min, respiratory rate was 24/ min and his body temperature was 37.2°C.

The patient had maculopapular rash on a generalized erythematous surface, covering large areas of the body surface **(Figure 1)**. Ulcerated vesiculo-bullous lesions on the oral mucosa and lip were revealed **(Figure 2)**. Nikolsky's sign was positive. Epidermal dissociation was present on approximately 5% of the body surface area. Due to the skin and mucosal findings, amoxicillin-clavulanic acid-induced SJS was suspected. The drug was withdrawn immediately. Intravenous (IV), corticosteroid and skin care were started on the patient. Both eyes were closed with sterile eye closure. Bilateral mucopurulant conjunctivitis was administered with daily antibiotic ointment and drops. Amniotic band was applied to both eyes by ophthalmologist. The lesions progressively resolved and the patient was discharged home after being advised to avoid using amoxicillin clavulanic acid in future.

## Discussion

SJS is a rare but life-threatening mucocutaneous disease with an incidence of 1–6 /1.000.000 and a mortality of approximately 5-15%. It is more common in the second decade and in men than in women.[4] Although many agents have been reported in the etiology of SJS, drugs (sulfonamides, penicillin, cephalosporin, erythromycin, phenobarbital, carbamazapine, diazoxide) are the most common.[5] Our case was that the patient was in a young age group and the risk was relatively high because he was male. Due to the skin and mucosal findings, amoxicillin-clavulanic acid-induced SJS was suspected.

SJS typically develops skin lesions in the neck and proximal extremity, mainly in the trunk and face, after a prodromal period of approximately 1-14 days with flu-like symptoms including fever, cough, myalgia and arthralgia.[6] Characteristic skin lesions are irregular confined atypical target-style lesions and central necrotic diffuse purpuric macules and cell deaths in the skin layers result in dissociation at the dermoepidermal junction and subsequent bullae formation. Epiderm peeling occurs with a slight force applied to the skin lateral to the bulla, and this is called a positive Nikolsky sign.[2,4] Mucous membranes are involved in approximately 90% of patients, especially the oral mucosa.

Approximately half of the patients have eye findings ranging from acute conjunctivitis to corneal ulceration and blindness. It is less than 10% in SJS, but more than 30% in toxic epidermal necrosis (TEN). Patients with epidermal dissociation between 10–30% are called SJS-TEN overlap.[7] In our case, there were erythematous maculopapular lesions on the whole body, especially on the trunk and back, conjunctivitis of the eye and aphthous ulcers of the oral mucosa. In our patient Nikolsky's sign was positive and epidermal dissociation was about 5%.

There is no specific treatment for SJS. The most important step of treatment consists of early diagnosis, immediate discontinuation of suspicious drugs and supportive treatment. Fluid replacement, adequate nutrition, wound care and infection prevention are the supportive treatments.[8] The use of systemic steroids in the treatment of SJS remains controversial. In addition to studies suggesting systemic steroid use in SJS, there are also studies that do not prefer this because of adverse effects on infection, gastrointestinal bleeding and wound healing.[4] In our case, we started IV steroid treatment in the early period and with steroid treatment, a significant improvement was observed in the general condition and rashes of the patient.

As a result, today, safe antibiotics such as amoxicillin clavulanic acid are frequently used. However, life-threatening side effects such as SJS should be kept in mind. Management includes early detection, cessation of delinquency and prompt initiation of supportive therapies.

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