



Acute Cutaneous Drug Reaction- Bullous Pemphigoid: Case Report

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ABSTRACT

Any drug is a potentially impending cause of adverse hypersensitivity reaction. Cutaneous adverse drug reactions are common, but these reactions generally have a late onset: from days to months after drug intake. Most common drugs that cause bullous pemphigoid are penicillamine, furosemide and penicillins. Cephalosporins are known as safe antibiotics and rarely lead to severe side effects. A case of, probably the first, rapid onset of acute cutaneous drug reaction after the first oral intake of a cephalosporin was presented here. This rare case report addresses the fact that severe cutaneous drug reactions can occur immediately after onset of oral cephalosporin therapy.

KEYWORDS : Drug Eruption; Bullous Pemphigoid; Cephalosporin

Introduction

Cutaneous adverse drug reactions are common; up to 3% of hospitalized patients are affected and a significant number of outpatient morbidity is reported.¹

Data for drug-induced bullous pemphigoid (DIBP) is primarily derived from case-reports. The drugs most frequently implicated in DIBP are penicillamine and furosemide; also there are reports of cases associated with captopril, penicillin and its derivatives, sulfasalazine and nalidixic acid.² Clinical manifestations of DIBP include tense vesicles and bullae on an inflammatory base distributed on the arms, legs, and trunk.

Cephalosporins (Cs) are currently widely, safely, and appropriately used antibiotics in the outpatient setting. They are believed to have very few side effects.

Bullous pemphigoid is a rare drug reaction, and as far as we know we report the first case of acute bullous pemphigoid after oral cephalosporin intake.

Case report

A32-year-old man admitted to emergency department with multiple reddish coin form lesions on the trunk (Figure 1), erythematous arm and leg skin with multiple bullae on hands and feet (Figure 2a and 2b), and erosions on lips and nasal mucosa. On admission no other abnormality was detected (no fever, vital parameters were in normal ranges, systemic examination showed a healthy person). He denied having any allergy before. He was a white-collar worker and denied foreign dust, plant, smoke or other exotoxin contamination. The patient declared to have had upper respiratory tract infection and that he was prescribed a second-

generation cephalosporin. About six hours after oral 500 mg cephacloz intake the skin lesions appeared; first, itchy, restless lesions appeared on trunk, then redness in acral skin appeared, non-hemorrhagic bullae formed and he admitted to the emergency department.

Laboratory tests showed a mildly elevated white blood cell count ($13.10^3/\text{mm}^3$), mild eosinophilia (900 eosinophils/microL) and minor elevation in hepatic enzyme levels (AST 40 U/L and ALT 56 U/L respectively). Other parameters were within normal ranges.

We treated the patient with methylprednisolone 80 mg IV injection, pheniramine maleate 45 mg IV injection in the emergency department and prescribed oral therapy, stopped the cephalosporin and consulted to dermatology. Drug induced bullous pemphigoid was diagnosed. The patient was discharged after an 8-hour of observation without any complication.

Discussion

Within the various groups of antibiotics, side effects in systemic use are commonly reported for β -lactams (penicillins and cephalosporins).³ Antibiotics may cause various types of allergic drug reactions; cutaneous reactions, organ-specific reactions or systemic reactions, and the cutaneous side effects may range from mild rash to severe life-threatening toxic epidermal necrosis.⁴

Generally, onset of the cutaneous drug reaction depends on the route of drug administration; a more severe and more rapid onset is generally observed after intravenous drug injection, and cutaneous reactions are generally less aggressive and show late onset if drug is taken orally. Literature gives some examples of rapid onset of severe allergic reactions after oral intake of drugs^{3, 5}, nevertheless, our

patient is an out-of-rule case; a severe cutaneous drug reaction has occurred immediately after the onset of oral cephalosporin therapy.

Individuals who have been exposed to a drug earlier and who had an allergic reaction to it show generally greater risk to develop a drug reaction and this data facilitates physicians to keep alert.⁶ However, considering that the patient denied earlier drug reactions and any allergies he probably would have not been warned about any cross-reaction (e.g. having penicillin allergy might seldom be the cause of a cross-reaction with cephalosporins). This was the main trap point of our case. Physicians should keep alert about any new symptom after medication.

In conclusion, with this case we make an alert to that any drug, regardless of how frequently it is used and how safe it is known to be, is a potential exotoxin. Physicians should give this information to their patients and should be on close interaction for feedback.



Figure 1. Rush and coin form erythematous lesions on trunk



2a



2b

Figure 2a and 2b. Blistering skin lesions and non-purulent bulls on arms and legs.

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