Case Report

Ciprofloxacin induced fixed drug eruption

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ABSTRACT

Fixed drug eruption (FDE) is a clinical entity occurring in the same site or sites each time the drug is administered. Acute lesions appear as sharply marginated erythematous plaques, which are usually found on lips, genitalia, abdomen, and legs. The eruptions usually occur within hours of administration of the offending agent and resolves spontaneously without scarring after few weeks of onset. Most common drugs causing FDE are sulfonamides, tetracyclines, salicylates, barbiturates, doxycycline, fluconazole, clarithromycin, etc. Ciprofloxacin, a widely used fluoroquinolone antimicrobial, induces cutaneous adverse drug reactions (ADRs) in about 1-2% of treated patients. Urticaria, angioedema, maculopapular exanthesms, and photosensitivity are the most frequently documented cutaneous adverse reactions. In this case report, the patient soon after taking ciprofloxacin tablets, developed itching in the lips, palms and in scrotal region. On continuing the treatment, the next day he developed fluid filled lesions over palm, knuckle, and hyperpigmentation. He gives a history of severe itching and rashes in scrotal region. He gives a history of similar complaints in the previous month after taking ciprofloxacin medication. There was no history of intake of any other medication. On examination, bullous lesions and pustules in finger webs, hyperpigmentation on knuckles, and scrotal erosions were seen. In the present case report, the patient presented with FDE immediately after oral administration of ciprofloxacin and got completely cured after stopping the drug and taking adequate treatment. According to the Naranjo’s ADR probability scale (score=8), this ADR is categorized as a “probable” reaction to the drug.

Keywords: Ciprofloxacin, Tablet, Antimicrobials, Non-steroidal anti-inflammatory drugs, Fixed drug eruption, Adverse drug reaction, Erosions, Bullous, Lesions, Naranjo, Probable

INTRODUCTION

Fixed drug eruption (FDE) is a clinical entity occurring in the same site or sites each time the drug is administered. Acute lesions appear as sharply marginated erythematous plaques which are usually found on lips, genitalia, abdomen, and legs. The eruptions usually occur within hours of administration of the offending agent and resolves spontaneously without scarring after few weeks of onset.1 Most common drugs causing FDE are sulfonamides, tetracyclines, salicylates, barbiturates, doxycycline, fluconazole, clarithromycin, etc.1,2

Ciprofloxacin, a widely used fluoroquinolone antimicrobial, induces cutaneous adverse drug reactions (ADRs) in about 1-2% of treated patients.3 Urticaria, angioedema, maculopapular exanthesms, and photosensitivity are the most frequently documented cutaneous adverse reactions.4

CASE REPORT

A 30-year-old male patient with a history of conjunctivitis was treated with tablet ciprofloxacin 500 mg BD for 5 days. Soon after taking tablets, he developed itching in the lips, palms and in scrotal region. On continuing the treatment, the next day he developed fluid filled lesions over palm, knuckle, and hyperpigmentation. He gives a history of severe itching and rashes in scrotal region. He gives a history of similar complaints in the previous month after taking ciprofloxacin medication. There was no history of intake of any other medication. On examination, bullous lesions and pustules in finger webs, hyperpigmentation on knuckles and scrotal erosions were seen. The association was “probable” as per the Naranjo’s scale. Hence, a diagnosis of ciprofloxacin induced drug eruption was made. The patient was treated with, injection avil (pheniramine maleate) intravenously (iv) stat, injection effcoril (hydrocortisone hemisuccinate) iv stat,
tablet wysolone (prednisolone) 20 mg 2-0-0 for 5 days, tablet atarex (hydroxyzine) 10 mg 0-0-1 for 5 days, Etan G cream (clobetasol propionate + gentamicin) for topical application. The patient was asked to review after 5 days.

DISCUSSION

ADRs are one of the major hazards of modern medicine. Amongst them, cutaneous ADRs are frequently encountered. FDE is a distinctive drug-induced dermatological disorder with a characteristic recurrence at the same sites of the skin or mucous membrane after repeated exposure to the causative drug. FDE is believed to be a lymphocyte CD8-mediated reaction in which drug may induce local reactivation of memory T-cell lymphocytes localized in epidermal and dermal tissues. The most common drugs causing FDE are antimicrobials followed by non-steroidal anti-inflammatory drugs.

Ciprofloxacin is one of the most common antimicrobials used in practice. It is a fluorinated quinolone having broad antimicrobial activity against both Gram-positive and Gram-negative organisms, excellent tissue penetration, twice a day dosage schedule and is effective after oral as well as parenteral administration. Side effects of ciprofloxacin are relatively few, and development of resistance by microbes is also rare. It is used in infections of urinary tract, respiratory tract, bones and soft tissues. A few cases of ciprofloxacin-induced photosensitivity, hypersensitivity, anaphylaxis, vasculitis, erythema multiforme or toxic epidermal necrolysis have been reported so far. FDE to ciprofloxacin is rarely reported.

In the present case report, the patient presented with FDE immediately after oral administration of ciprofloxacin and completely cured after stopping the drug. According to the Naranjo’s ADR probability scale (score=8), this ADR is categorized as a “probable” reaction to the drug.

Therefore, this rare case is presented to create awareness about the side-effects associated with this very commonly prescribed antimicrobial agent. Another aspect to be noted in this case report is that a proper detailed history regarding previous drug-induced allergies would have averted this ADR as the patient had a previous history of a similar reaction to ciprofloxacin.

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