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CONTENTS

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CONTENTS (CONTD.)

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Sparfloxacin induced toxic epidermal necrolysis

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ABSTRACT

Toxic epidermal necrolysis (TEN) is a life-threatening cutaneous adverse drug reaction. TEN is known to occur with the fluoroquinolone class of antibiotics, but only four cases of sparfloxacin induced TEN have been reported to the WHO database. This is another case report of sparfloxacin induced TEN.

Key Words: Adverse drug reaction, Fluoroquinolones, Sparfloxacin, Toxic epidermal necrolysis

INTRODUCTION

TEN is known to occur with the fluoroquinolones. However, the incidence of sparfloxacin induced TEN is very low, with only four cases having been reported to the WHO database.[1] We report here one more case.

CASE REPORT

A 17-year-old boy with a three-day history of cough and fever was treated with sparfloxacin 400 mg on day one and 200 mg on the following two days. On day three of treatment the patient was hospitalized at our centre for an extensive blistering rash and involvement of the eyes, oral and nasal mucosa. He had greater than 60% cutaneous detachment and was diagnosed as drug induced toxic epidermal necrolysis (TEN). Except for electrolyte imbalance, all the hematological tests and liver and renal functions were within normal limits.

Sparfloxacin was stopped and the patient was treated with injections of pheniramine maleate and methyl prednisolone 1 g o.d. intravenously for 4 days. The oral mucosa was treated with metronidazole 1% gel and chlorhexidine mouth wash. Oral prednisolone 40 mg o.d. was begun on the fifth day of admission and was continued until day 19, with constant monitoring of the patient's condition in an intensive care area. Based on culture sensitivity reports, he was treated with various injectible antibiotics during his hospital stay. These included amoxicillin + sulbactam 1.5 g b.i.d., ceftriaxone 1 g b.i.d., cefoperazone 1 g b.i.d. and gentamicin 120 mg o.d. on different days. During this period he was gradually improving, but on the day 22 of hospitalization, he died of suspected pulmonary emboli.

The causality assessment of the reaction was 'probable' by both the WHO probability scale and Naranjo's ADR probability scale.

DISCUSSION

The number of hospital admissions related to TEN is reported to be 0.5 per million per year[2] with a mortality rate between 20% and 66% in the acute phase. The medications most frequently reported to precipitate TEN include sulfonamides, phenytoin, allopurinol,

carbamazepine, non-steroidal anti-inflammatory drugs, antibacterials and barbiturates.[3,4] Non-drug etiologies are uncommon but include viral, bacterial and fungal infections and neoplastic diseases.[5] Early withdrawal of the causative drug with a half life less than 24 hours is associated with a better prognosis and a lower mortality.[3] Sparfloxacin has a half life of 16 hrs. Prompt withdrawal of sparfloxacin in the case of TEN may decrease the mortality.

Corticosteroids are used in the treatment of TEN in an attempt to impede the basic pathophysiology, by inhibiting antibody-dependent cytotoxicity. The use of corticosteroids in the management of TEN has fallen into disfavor because of an increased incidence of sepsis, a five-fold increase in the incidence of infection if used for more than 48 hours, a longer hospital stay and an increased mortality rate.[5-8] Though intravenous immunoglobulin therapy is a promising experimental treatment,[9,10] more trials are needed before it is adopted as the treatment of choice.

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