

PARACETAMOL INDUCED BULLOUS FIXED DRUG ERUPTION: CASE REPORT

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ABSTRACT

We report a rare case of Bullous Fixed Drug Eruption induced by the use of Zerodol P (aceclofenac 100 mg, paracetamol 500 mg) and Capsules Amoxicillin 500 mg in a 40-year-old female patient prescribed for dental pain. Temporal association with drug, history of a similar reaction in the past with paracetamol, led us to the diagnosis of fixed drug eruption due to paracetamol. Fixed drug eruption (FDE) is a type of drug-induced skin reaction pattern that characteristically recurs at the same skin or mucosal site. Paracetamol is one of the common drugs prescribed as an analgesic-antipyretic agent in all age groups of patients. Prompt recognition and treatment of such adverse drug reactions by these drugs will reduce the associated morbidity. Drug alert cards could play an important role in preventing recurrences.

KEYWORDS: Fixed drug eruption, paracetamol, Pain.**INTRODUCTION**

Paracetamol also known as acetaminophen is one of the most commonly used analgesic and antipyretic drugs around the world. It is available as Over the counter (OTC) drug, both as single preparation and fixed drug combinations. It acts by inhibiting cyclooxygenase enzyme and is a potent antipyretic and analgesic with poor anti-inflammatory action.^[1]

Paracetamol is generally a well tolerated drug with a good safety profile and low incidence of side effects at the recommended dose. Prolonged daily use can lead to serious side effects like kidney or liver damage,^[2,3] and long term side effects like increased risk of gastrointestinal bleeding.^[4]

Cutaneous reactions to paracetamol are uncommon and include anaphylaxis,^[5,6] urticaria, maculopapular rashes, and fixed drug eruptions (FDE).^[7] Dermatological side effects like erythematous skin rashes associated with paracetamol have been reported but are rare. Paracetamol-induced FDE is reported in the literature in less than 1.5% of all cases of FDEs.^[7]

Fixed Drug Eruption is a cutaneous type of hypersensitivity reaction to drugs. It is characterized by the development of well-circumscribed erythematous patches and plaques on exposure to a drug. On discontinuation of the offending drug, the lesions resolve with postinflammatory hyperpigmentation. On repeat exposure of the drug, the lesions recur at the same sites.^[8]

Tablet Zerodol P which contains Paracetamol (500 mg) + Aceclofenac (100 mg) is a combination medicine used for the treatment of pain and inflammation.

CASE REPORT

A 40 year old female patient presented with a history of multiple itchy raised and fluid filled lesions initially over the trunk which progressed to involve face and extremities as well.

The initial episode started with a red rash after the intake of a medication for her dental pain. The rash later evolved into multiple raised and fluid filled lesions which later eroded to form crusted lesions all over the body.

Medication history revealed intake of Tab. Zerodol P for her dental pain one day prior to the onset of the rash. No history of other drug intake was given.

There was a positive history of allergic reaction in the past to paracetamol, given postpartum, which presented as a rash with itching over similar sites in the body for a short period and which resolved without any medications.

Patient was admitted in the Dept of DVL and routine investigations including skin biopsy were done. Patient was stable and was put on medical management. The suspected drugs were withdrawn and the patient was treated with tablet prednisolone 10 mg twice daily and chlorpheniramine maleate 25 mg once daily along with other supportive treatment.

On Cutaneous examination the patient had multiple crusted plaques, few scattered erythematous papules, bullae and erosions. Few areas of the skin showed changes of post inflammatory hyperpigmentation. No oral or genital mucosal involvement was seen.

Laboratory investigations such as hemoglobin, complete

blood count, blood sugar level, and Liver function tests were found to be within normal limits.

Skin biopsy was consistent with the diagnosis of Bullous Fixed Drug Eruption. The epidermis revealed foci of basal cell vacuolation, lymphocytic exocytosis, and many necrotic keratinocytes at and above the basal layer.

Oral provocation test and patch testing with Paracetamol could not be done as the patient did not consent for the same

A diagnosis of Bullous Fixed Drug Eruption due to Paracetamol was made based on clinical and histopathological reports reinforced with a strong positive past history of similar eruptions due to the drug.

The causality assessment of bullous FDE due to paracetamol was assessed using two Adverse drug reaction assessment methods- the Naranjo ADR scale.^[9] and the World Health Organization-Uppsala Monitoring Centre (WHO-UMC) Causality Assessment.^[10] This resulted in a probable ADR, a score of 5 with Naranjo scale, and a probable with the WHO ADR scale.

Table: Causality assessment of suspected ADRs.

Suspected and Reaction	Naranjos Scale	WHO-Probability Scale
Paracetamol induced fixed drug eruptions	Probable	Probable

DISCUSSION

Fixed drug eruption (FDE) is a cutaneous ADR that is commonly seen in children and adolescents. It is characterized by recurrent eruptions when the offending drug is re-administered. The hallmark of FDE is the recurrence in the same site on repeated administration of the offending drug⁷. In our case, the patient has a bullous fixed drug eruption with multiple erythematous papules and bullae that started on the back, abdomen, leg and gradually became generalized all over the body sparing palms, soles surfaces. Paracetamol-induced FDE is indicative of definite ADR. A score of 5 is indicative of ADR being Probable according to the Naranjo scale, thus indicative of FDE. History of a similar episode of rashes and itching with paracetamol is highly suggestive of paracetamol being the offending drug. However, the role of concomitantly administered drugs has to be excluded.

Hypersensitivity reactions have been reported with Aceclofenac which includes urticaria, angioedema, bullous eruption, allergic purpura, erythema multiforme, Steven-Johnson syndrome, and toxic epidermal necrolysis.^{11, 12} However there is no positive history of the drug causing similar episodes in the past.

To conclude, many drugs which are available OTC can produce serious as well as non-serious adverse reactions; it becomes very difficult to identify the exact etiological agent when such a reaction occurs. The previous history of uneventful administration of any commonly used OTC drug helps us to rule out the other drugs.

Paracetamol though a relatively safe OTC, widely used by pediatric and adult patients, must be prescribed with caution of adverse effects to prevent such adverse events.

The main intention of this case report of fixed drug-induced bullous eruption by paracetamol is to make the prescribers as well as patients aware of this ADR occurrence by these drugs. It is advocated to take a proper history of previous allergic reactions before prescribing OTC pain medications for pain and

inflammation. Usage of Drug alert cards could prevent such reactions in the future.

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