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## **Research Article**

# **DICLOFENAC INDUCED FIXED DRUG ERUPTIONS - A CASE REPORT**

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#### ABSTRACT

Fixed drug eruptions (FDE) are common dermatological adverse drug reactions which are commonly caused by antimicrobials, anticonvulsants and non-steroidal anti-inflammatory drugs. Here, we are presenting a case of a 22-year-old male of fixed drug eruptions due to diclofenac which was used in treatment of sprain injury. The patient was treated by antihistaminic with local cleaning of wound and recovered completely within seven days.

Key Words: Fixed Drug Eruptions, Drug Reaction, Diclofenac

### **INTRODUCTION**

Fixed drug eruption (FDE) is a clinical condition occurring in the same site/sites each time when the drug is administered (Shiohara, 2007). The most common drugs implicated for FDE are antimicrobials (sulfonamides, amoxicillin, tetracyclines, trimethoprim, quinolones, dapsone etc.) followed by anticonvulsants (phenobarbitone, phenytoin, lamotrigine, sodium valproate etc.) and non-steroidal anti-inflammatory drugs (salicylates, diclofenac, ibuprofen etc (Chatterjee, 2006). Here, we are presenting a case of a 22-year-old male of fixed drug eruptions to diclofenac which was used in treatment of sprain injury of wrist joint.

### CASES

A 22-year-old male attended the skin OPD with a history of rash since morning of the same day. These lesions were associated with burning and itching. A complete drug history was taken which revealed that he had taken drug (tab diclofenac 50 mg) in last night which was followed by itching with rash in next morning. On dermatological examination, ulcerative, hyperpigmented lesions were found on both lower limbs (Figure 1).



Figure 1: Ulcerative eruption with erythematous border

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One day before to this, he had pain due to trauma to his right wrist. He had consumed diclofenac tablet taken from medical store and after that itching was started in midnight, but he ignored that and wake up in next morning with lesions described as above (Figure 1).

On examination of wrist, there was swelling with restricted movements of joints, probably a case of sprain injury. There was a history of similar lesions in the past due to diclofenac and ibuprofen. There was no involvement of the upper extremity, trunk and face as well. All routine investigations were within normal limits. The causality assessment (score=6) was carried out by using the Naranjo's ADR probability scale (Naranjo, 1981). A diagnosis of FDE to diclofenac was made and the patient was told not to take same drug again. The treatment was started with antihistaminic and local treatment of wound. There was complete recovery of the patient from skin lesion within seven days.

### DICUSSION

Diclofenac sodium is a widely used non-steroidal anti-inflammatory drug. The most commonly reported adverse drug reactions of diclofenac are nausea, vomiting, epigastric pain, headache, and dizziness. Gastric ulceration and bleeding are less common (Goodman Gilman, 2011). There is also incidence of anaphylactic reaction to intravenous diclofenac (Singh, 2011). Two cases were reported of Nicolau's syndrome following diclofenac administration (Murthy, 2007). A case of a patient, who developed aggravation of skin contact sites and generalized pruritic exanthem with constitutional symptoms following both topical and oral exposures to diclofenac, was also reported (Lakshmi, 2011). FDE to Diclofenac is also common occurrence (Goodman Gilman, 2011).

In the present case report, the patient presented with FDE immediately after oral administration of diclofenac and completely recovered after stopping the drug. In this case, Naranjo's algorithm (Naranjo, 1981) was used to determine a plausible reaction due to diclofenac. The following criteria were considered: reaction developed following diclofenac administration and the patient was apparently normal before the intake of drug (score +2); the condition improved within 2-3 days of discontinuation of diclofenac (score +1); the differential diagnosis of any underlying systemic condition with similar manifestations were ruled out (score +2); there was a history of similar lesions by such type of drug in past (score +1). Based on the total score of +6, the patient was categorized as 'probable' adverse reaction due to diclofenac administration.

Though there was a common occurrence of drug reaction due to diclofenac administration, but we reported it to emphasize the fact that caution should be exercised during administration of non-steroidal anti-inflammatory drugs, especially diclofenac to prevent this type of reaction.

#### REFERENCES

**Goodman Gilman (2011).** The Pharmacological Basis of Therapeutics. *McGraw-Hill Publication 12<sup>th</sup> Edition* 512-520.

Lakshmi C and Srinivas CR (2011). Systemic (allergic) contact dermatitis to diclofenac. *Indian Journal Dermatology Venereology and Leprology* 77 536.

Murthy SC, Siddalingappa K and Suresh T (2007). Nicolau's syndrome following diclofenac administration: A report of two cases. *Indian Journal Dermatology Venereology and Leprology* **73** 429-731.

Naranjo CA, Busto U, Sellers EM, Sandor P, Ruiz I and Roberts EA (1981). A method for estimating the probability of adverse drug reactions. *Clinical Pharmacology and Therapeutics* **30** 239-245.

**Chatterjee S, Ghosh AP, Barbhuiya J and Dey SK (2006).** Adverse cutaneous drug reactions: A one year survey at a dermatology outpatient clinic of a tertiary care hospital. *Indian Journal of Pharmacology* **38** 429-431.

Shiohara T and Mizukawa Y (2007). Fixed drug eruption: A disease mediated by self-inflicted responses of intraepidermal T cells. *Europian Journal of Dermatology* 17 201-208.

Singh R, Bansal D, Baduni N and Vajifdar H (2011). Anaphylactic recation to intravenous diclofenac. *Indian Journal of Critical Care Medicine* 15 37-39.