

Case Report

Medical Emergency In Dental Camp With Oral Administration Of Diclofenac Sodium.

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ABSTRACT

Diclofenac sodium is an NSAID used commonly as analgesic drug. There are a number of cases of anaphylaxis reported with intravenous administration of diclofenac. This report highlights a case with anaphylactic reaction with oral administration of drug in a dental camp after routine extraction of teeth with its management.

Keywords- Diclofenac, anaphylaxis, management

INTRODUCTION-

Diclofenac sodium is a nonsteroidal anti-inflammatory drug (NSAID). In a number of pharmacologic studies, it has shown anti-inflammatory, analgesic, and antipyretic properties. Commonly used routes of administration are oral, intramuscular,

intravenous, transdermal and rectal, oral route being the most common one.

The mechanism of action of NSAIDs is the inhibition of cyclooxygenase enzymes (COX). These enzymes participate in the metabolism of arachidonic acid, resulting in the production of potent inflammatory mediators such as prostaglandins and thromboxane. Two isoenzymes of COX, COX-1 (constitutive form) and COX-2 (inducible form) have been identified. The classical NSAIDs inhibit both isoenzymes and their use is often accompanied by gastrointestinal intolerance due to a decreased production of protective prostaglandin E₂ in the stomach.^[1] Anaphylaxis has been reported with oral ^[2], intramuscular ^[3] and rectal routes ^[4] still it is believed to be an idiosyncratic reaction and a very rare event.^[5] This paper highlights an anaphylactic reaction with oral

administration of diclofenac sodium in a patient reported in the dental camp.

CASE REPORT-

A 37year old patient reported in the camp at Markandeshwar Mandir, Shahbad organized by the Department of Community Dentistry, Mullana with a chief complaint of pain with respect to left lower back teeth since six days. There was no history of any physical or mental stress, trauma or any kind of ill health. The patient had never taken any analgesics before.

Clinical examination and procedure

Intraoral examination revealed poor oral hygiene status with multiple carious teeth. Root stumps were present with respect to lower left second and third molar for which the patient reported in the camp. Since, pain being the chief complaint so, extraction of the root stumps was planned.

The vital parameters were recorded with pulse rate 86/ minute, Blood Pressure 130/80 mm Hg. Following the routine dental procedure extraction of the root stumps was done under local anesthesia.

The patient was explained all the post extraction

instructions. The patient was prescribed diclofenac 50 mg twice daily for three days.

Within 45 minutes of extraction the patient reported back with marked urticaria on his hands and back with difficulty in breathing (Figure-1). Intraorally, there was marked redness and ulceration present on the lateral border of tongue (Figure-2). On examination the patient was conscious but irritable, had absent peripheral pulses, tachycardia, tachypnea and unrecordable blood pressure. He developed pruritus after the first dose of diclofenac. In view of these findings anaphylactic reaction to diclofenac sodium was suspected.

The clothes were loosened and the patient was put in reclined position on the dental chair. The patient was immediately given 100% oxygen. Adrenaline 0.5mg (0.5 ml of 1 in 1000) solution was injected intramuscularly. Then hydrocortisone 100 mg diluted in 5 ml saline was given intravenously. Patient condition improved significantly after 35 minutes. All the vitals were recorded again and were within the normal range.



Figure-1- Anaphylactic reaction on back



Figure-2- Intraoral anaphylactic reaction on lateral border of tongue

DISCUSSION

There is evidence that cross reactive anaphylactic reaction to NSAIDs can occur in some aspirin sensitive patients. However, hypersensitivity reaction with diclofenac is still unclear. A review of

the medical literature revealed only a few cases in adults. The prevalence of hypersensitivity to NSAIDs has been estimated to be 0.5 to 1.9% of the general population, whereas NSAIDs are responsible for 21 to 25% of all adverse reactions to

drugs.^[6,7]

The World Allergy Organization that defines drug hypersensitivity as the symptoms or signs initiated by exposure to a drug at a dose normally tolerated by non-hypersensitive persons. "Drug allergy" refers to immunologically mediated drug hypersensitivity reactions. These may be either immunoglobulin E (IgE)-mediated (immediate) or non IgE-mediated (delayed).^[7,8] Analgesic and anti-inflammatory medications are widely used in all age groups for the treatment of pain, inflammation and fevers of diverse etiologies.

CONCLUSION-

Diclofenac is the most common and safe drug prescribed by the dental surgeons after any dental procedure, yet this report brings awareness to potentially fatal anaphylactic reactions. Hence, initial investigations as well as proper knowledge and management of such cases are necessary to avoid any complication in dental practice.

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