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Anaphylactic reaction induced by intravenous diclofenac: A case report

[Dinesh Kumar Badyal](#), [Gaurav Gulrez](#), and [Divya Mahindru](#)¹

Department of Pharmacology, Christian Medical College and Hospital, Ludhiana, Punjab, India

¹*Department of Gynaecology, Christian Medical College and Hospital, Ludhiana, Punjab, India*

Address for correspondence: Dr. Gaurav Gulrez, Department of Pharmacology, Christian Medical College and Hospital, Ludhiana - 141 008, Punjab, India. E-mail: dr_gauravgulrez@gmail.com

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Abstract

Among the immune-mediated reactions, anaphylaxis is the most severe form. As a postoperative analgesia, diclofenac sodium, and nonsteroidal anti-inflammatory drug is commonly used. Intravenous (IV) diclofenac sodium-induced anaphylaxis is very rare. We are presenting a case of IV diclofenac-induced anaphylactic reaction, occurred during the surgery in a female patient of 21 years of age. The sign and symptoms of the reaction resembled an anaphylactic reaction. Temporal relationship with IV diclofenac administration and development of the clinical features of the reaction found to be probable. The health-care professionals should be aware of such rare and serious reactions so that it can be diagnosed and treated early. The clinical importance associated with the case encouraged us to report this rare complication of IV diclofenac.

Keywords: Anaphylaxis, diclofenac sodium

Introduction

For postoperative analgesia, diclofenac sodium, nonsteroidal anti-inflammatory drug (NSAID) is very commonly used. It is administered by intramuscular, intravenous (IV), transdermal, and rectal route. Anaphylaxis with oral, intramuscular, and rectal routes of the administration of diclofenac has been reported earlier[1] but with IV diclofenac, very few cases have been reported. We are presenting a case of IV diclofenac-induced reaction. The sign and symptoms of the reaction resembled anaphylactic reaction. The clinical importance associated with the case encouraged us to report this rare and fatal complication of IV diclofenac.

Case Report

A female patient of 21 years of age, short stature, and at 38th week of gestation was admitted, and lower segment cesarean section was performed under spinal anesthesia. She was given IV infusion (in 100 ml of normal saline) of diclofenac 75 mg during surgery to reduce postoperative pain. About 10–15 min after administration of 5 ml of the drug through IV route, the patient experienced uneasiness in her chest; there was shortness of breath palpitations and generalized itching. Immediately, the infusion of the drug was

stopped. At that time, the patient's pulse rate (PR) was 182/min; blood pressure (BP) was 80/40 mmHg. She was administered, injection adrenaline (0.5 ml of 1:10,000) by IV route. IV fluids were rushed in rapidly. Injection dopamine 10 µg/kg/min was administered. Injection hydrocortisone (100 mg IV), pheniramine (25 mg IV), stat, were also given. Gradually within 4 h, the patient's vital parameters improved. After the treatment, PR 90/min, BP 120/84 mmHg. Dyspnea and itching also resolved. The information regarding the reaction was given to the adverse drug reaction (ADR) monitoring center. The reaction was graded serious and life-threatening. The outcome of the reaction was recovered as the patient recovered within 4 h after stopping the drug, starting the supportive treatment. Dyspnea was graded Grade 3, according to the WHO ADR toxicity guidelines. The WHO causality assessment was done to find out the relationship between the diclofenac and the event; the relationship was found to be probable. ADR reporting form, version 1.2 was filled up the information regarding the reaction was reported to the National Coordinating Centre through VigiFlow.

Discussion

Hypersensitivity reactions are very commonly caused by NSAIDs. IV diclofenac-induced anaphylaxis is not a common but a rare event.[2] Clinical studies have revealed that diclofenac causes less number of reactions as compared to other NSAIDs.[3] Literature search has revealed that the incidence of anaphylactic reaction to IV diclofenac is rare, and very few cases have been reported so far. Most of the earlier reported cases had fixed drug eruption associated with the administration of diclofenac.[4] Anaphylactic reaction associated with IV diclofenac in other reported cases were associated with pulmonary embolism, and fatal cardiovascular outcomes, myocardial infarction, and shock,[5] unlike in our case, no such event happened. The health-care professionals (HCPs) should be aware of such serious reaction, so that early diagnosis and treatment can prevent further complications. Adrenalin is very commonly used and is the drug of choice for anaphylaxis, should be administered. This is a rare case of anaphylactic reaction caused due to IV diclofenac. By reporting this reaction, our aim is to make aware the HCPs, though IV diclofenac is very commonly used in clinical practice but can lead to serious anaphylaxis, and they should be aware of such a rare reaction caused by IV diclofenac, so that prompt diagnosis and timely management can prevent the further serious and fatal complications.

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Conflicts of interest

There are no conflicts of interest.

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