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Perspective

A Note on Ofloxacin Induced Hypersensitivity Reaction

Prexita Patel*

Department of Pharmacology, Anand Pharmacy College, Gujarat, India

DESCRIPTION

Ofloxacin is a fluoroquinolone of the second generation that is extremely efficient against a wide spectrum of bacterial illnesses. Fluoroquinolones are well-tolerated medications with mild-to-moderate negative effects such as gastrointestinal problems, skin reactions, and neurological reactions. These are common antimicrobials that can generate cutaneous ADRs in 1-2 percent of instances. Ofloxacin-induced hypersensitivity reactions occur seldom, with frequency ranging from 0.4%-2%, depending on the drug. The most common quinolone complications were gastrointestinal problems, followed by neuropsychiatric symptoms, hematologic abnormalities, and, less frequently, hypersensitive skin reactions.

Though ofloxacin hypersensitivity reactions are unusual, a thorough medical history should be obtained before providing the drug. Professionals should be aware of this rare but potentially serious adverse event, particularly because ofloxacin is commonly used for Pneumonia, skin and soft tissue infections, bladder, reproductive organs, and prostate and genitourinary infections. Patients should be closely monitored for adverse reactions, especially when using quinolones. Side effects of ofloxacin include nausea, diarrhea, constipation, vomiting, stomach pain or cramps, loss of appetite, dry mouth, excessive tiredness, pale skin, pain, swelling, or itching of the vagina. Ofloxacin is a second-generation fluoroquinolone that can be used as an injectable, pill, ocular drops, or ointment. Moreover, due of its broad antibacterial range and ease of use, it has been used as a second-line anti-tuberculosis medication in Asia. The mechanism underlying ofloxacin hypersensitivity, on the other hand, is unknown. Fluoroquinolones are well tolerated, with mild to moderate adverse effects being the most frequent. On rare occasions, significant side effects can occur. Gastrointestinal side effects such as nausea, vomiting, and diarrhoea, as well as headache and sleeplessness, are common.

The overall rate of adverse events in fluoroquinolone-treated patients is similar to that reported in people treated with other antibiotic classes. In recent years, hypersensitivity reactions to quinolones, the most of which are immediate-type reactions, appear to have increased. The prevalence of immediate hypersensitivity reactions to quinolones ranges from 0.4%-2%. Because of its pervasive use, ciprofloxacin was the most commonly implicated, followed by ofloxacin and cinoxacin, according to a review of the literature. Urticaria and anaphylaxis were the most common reactions. The previous studies showed the comparative clinical aspects of five patients with ofloxacin hypersensitivity to five patients with ciprofloxacin hypersensitivity using serum-specific, Immunoglobulin E (IgE) antibodies. Skin test results have been inconsistent and unreliable as a way of diagnosing quinolone hypersensitivity, inducing false positive reactions in healthy controls by triggering direct histamine release.

All of the group I participants in this trial had negative Skin Prick Test (SPT) values at the maximum ofloxacin concentration. Using radioimmunoassay, a few research studies have reported the existence of serum-specific IgE to ciprofloxacin and moxifloxacin; however, the method carries the hazard of radiation exposure.

After the use of ofloxacin infusion, ADR are observed within few minutes. Based on the history and clinical examination, the patient was diagnosed with ofloxacin-induced hypersensitivity and was successfully treated with antihistamines and corticosteroids. The general management of ADR includes withdrawal/suspension, dose reduction of the suspected drug, and supportive care. The medications were discontinued, and the patient was treated symptomatically.

Correspondence to: Prexita Patel, Department of Pharmacology, Anand Pharmacy College, Gujarat, India, E-mail: Prexitapatel2011@gmail.com

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