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Case Report
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Allergic Drug Reactions- Caution is Better than Cure

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Abstract

Case report: This case report highlights the allergic reaction with the over-the-counter non-steroidal anti-inflammatory drug (NSAID) mefenamic acid. Approximately 10% of individuals exposed to mefenamic acid can even experience DRESS syndrome, a severe and potentially fatal allergic reaction characterized by fever, skin rash, lymphadenopathy, haematological abnormalities, and internal organ involvement. Leucocytosis with eosinophilia (90%) and mononucleosis (40%) has been linked to certain cases, emphasizing the diversity of clinical presentations. The causative medication must be promptly discontinued upon identification of DRESS syndrome, with documented evidence indicating improved prognosis with early drug removal. We report a case of twenty-five-year-old male, not a known case of any chronic illness, presented with pain abdomen in outdoor department. He was advised all routine tests and ultrasonogram abdomen and was started on symptomatic treatment which included proton pump inhibitors and mefenamic acid. He reported next day with diffuse allergic patches all over body and immediately all the treatment was stopped. At this point of time, he shared that he has got thrice same type of reaction in past after use of mefenamic acid. The allergic skin patches resolved within three days without development of any systemic symptoms. On his medical record, note was put that he is allergic to mefenamic acid and was advised not to use this salt in future and to make aware to all the treating health care in future also to safeguard from use of mefenamic acid.

Conclusion: Our case report emphasizes the fact about need of strict vigil about drug reactions and making patients aware for sharing the same every time they come in contact with health professionals.

Keywords: Allergic reaction; Rash; Eosinophilia; Mefenamic acid; NSAIDs

Case Report

We report a case of twenty-five-year-old male, not a known case of any chronic illness, presented with pain abdomen in outdoor department. He was advised all routine tests and ultrasonogram abdomen and was started on symptomatic treatment which included proton pump inhibitors and mefenamic acid. He reported next day with diffuse allergic patches all over body and immediately all the treatment was stopped. At this point of time, he shared that he has got thrice same type of reaction in past after use of mefenamic acid. The allergic skin patches resolved within three days without development of any systemic symptoms. All his routine labs including liver & renal function test, blood sugar, complete lipid profile, thyroid profile, serum electrolytes, urine examination was normal and complete hemogram showed mild eosinophilia and mildly raised erythrocyte sedimentation rate. His ultrasonogram abdomen and chest x-ray was also normal. His general physical examination revealed diffuse flat based dark patches on base of right thumb, nape of neck, on dorsal and ventral surface of chest and abdomen. On his medical record, note was put that he is allergic to mefenamic acid and was advised not to use this salt in future and to make aware to all the treating health care in future also to safeguard from use of mefenamic acid (Figure 1-4).

Discussion

Mefenamic acid, or 2-[(2,3-dimethylphenyl) amino] benzoic acid, is its chemical formula [1]. In watery solutions, the mefenamic acid is weakly soluble [2]. It has the ability to reduce inflammation without being an NSAID [3]. Despite its antipyretic, anti-inflammatory, and analgesic properties, mefenamic acid is mostly used to reduce pain. Rheumatoid arthritis, osteoarthritis, dysmenorrhea, mild to moderate discomfort, inflammation, and fever are among the conditions it is used to treat [4]. Due to its poor solubility over the pH range of 1.2- 7.5, mefenamic acid is categorised as class II in the biopharmaceutical classification

system [5]. Around 10% of people get DRESS syndrome, or drug rash with eosinophilia and systemic symptoms, a severe allergic reaction that can be fatal that is brought on by specific drugs. It appears two to eight weeks after the medication is administered and is marked by fever, skin rash, lymphadenopathy, haematological abnormalities, and involvement of internal organs. Leucocytosis with eosinophilia (90%) and/or mononucleosis (40%) is linked to several instances. As soon as DRESS syndrome is identified, the causing medication needs to be stopped. In fact, it has been said that the prognosis improves with an earlier drug discontinuation [6]. The research article has already published in past in which there is compilation of different cases of various kind of reactions with mefenamic acid [7].

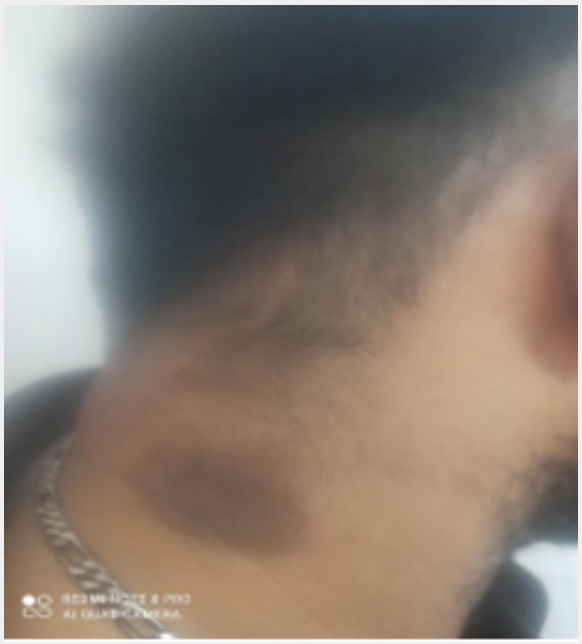

Figure 1: Allergic Rash on Nape of Neck.

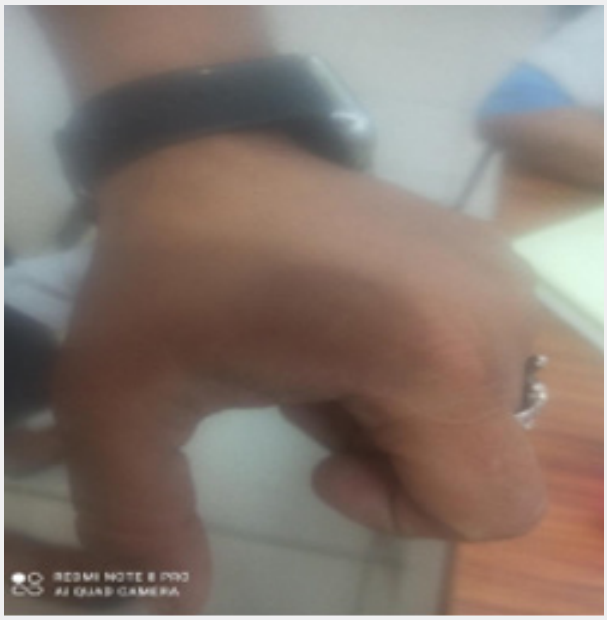

Figure 2: Allergic rash on base of left hand.

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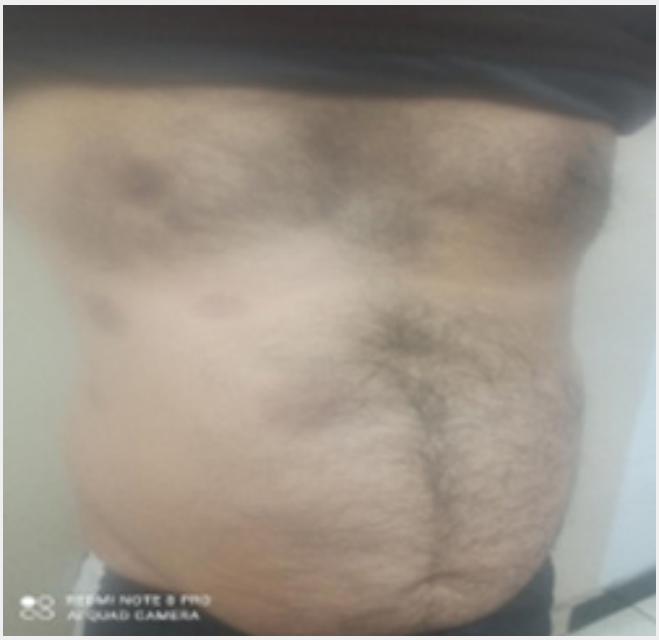

Figure 3: Rash on chest and abdomen ventrally.

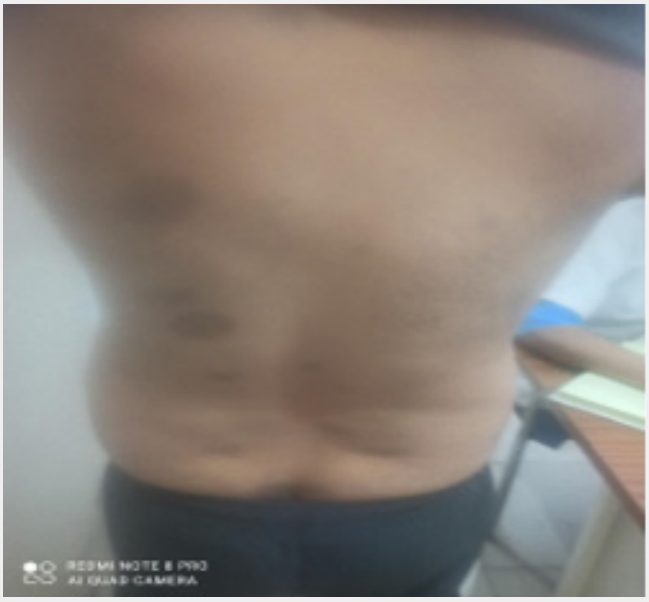

Figure 4: Rash on chest and abdomen dorsally.

Most reported adverse reactions secondary to mefenamic acid use are epigastric pain, headache, nausea, fatigue, diarrhoea and skin rash. The side effects are generally increased with prolonged use and with increased daily doses [8]. Mefenamic acid is an old drug, which lost its popularity with newly marketed drugs with relatively limited side effects. However, it has still a role in chronic pain and some pain syndromes due to its potency. Reported side effects secondary to mefenamic acid are, included but not limited to anaphylaxis, skin reactions, nephrotoxicity, drug-induced acute pancreatitis and enteropathy [9-11]. Our case report also signifies one of the varieties of drug reaction with mefenamic acid in which there was isolated skin rash and without any systemic symptoms. Our patient had already developed thrice drug rash with mefenamic acid but still failed to intimate when for fourth

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time it was prescribed by us. Had he been more aware and vigil, he could have avoided repeated exposure of mefenamic acid leading to drug reaction which could have even proved life threatening. He was lucky that every time he only developed skin rash without any systemic involvement.

Conclusion

Our case report emphasizes the fact about need of strict vigil about drug reactions and making patients aware for sharing the same every time they come in contact with health professionals.

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