

In the name of God



Department of Internal Medicine

**Shiraz E-Medical Journal**

**Vol. 7, No. 2, April 2006**

## **Ibuprofen Related Erythema Multiforme Dermatologic Disorder, A Case Report.**

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### **Abstract:**

Ibuprofen, is a widely used nonsteroidal anti-inflammatory drug (NSAID). Here, we reported a rare adverse effect of ibuprofen as ibuprofen related skin rash with swelling lips. The case was diagnosed on the present illness and follow up. This is a rare adverse effect of ibuprofen with the incidence less than 0.1 %. The awareness of the physician to this widely used drug on its rare adverse effect is necessary.

Key Words: ibuprofen, skin rash.

### **Introduction:**

Ibuprofen, is a nonsteroidal anti-inflammatory drug (NSAID). Ibuprofen, <sup>(1-3)</sup>. In pharmacologic studies, ibuprofen has shown anti-inflammatory, analgesic, and antipyretic activity. As with other NSAIDs, its mode of action is inhibition of enzyme cyclooxygenase, involved in its anti-inflammatory activity, as well as contribute to its efficacy in relieving pain related to inflammation, especially rheumatic disorders<sup>(1-3)</sup>.

The most common adverse effects of this drug are gastritis, peptic ulceration, and

depression of renal function, all of which result primarily from prostaglandin inhibition<sup>(1-3)</sup>. The types of side effects observed with ibuprofen are similar to those of other nonsteroidal anti-inflammatory drugs and are unavoidable given that the drugs are prostaglandin inhibitors. However, the incidences of such side effects may be lower with ibuprofen than with some of the other nonsteroidal anti-inflammatory drugs <sup>(1)</sup>. It is claimed as the NSAID with low side effect comparing to the others <sup>(1-3)</sup>.

Dermatologic disorder is an important but rare adverse effect of NSAID. Mahboob and Haroon, 1998 <sup>(4)</sup> reported a retrospective study on the fix

drug eruption cases and revealed that ibuprofen is a drug which can present this adverse effect. Indeed, a wide spectrum of dermatologic disorder among ibuprofen users has been reported<sup>(4-6)</sup>. Here, we reported a case with adverse effect of ibuprofen as ibuprofen related skin rash.

## Case Report:

**Patient history:** A 35 years old female patient visited the physician with the problem of skin rash in her both forearm. She revealed the persistence of this skin lesion for 5 days. She notified no past history of drug or food allergy. Concerning the present illness, she revealed the concomitant use of the self - prescribed ibuprofen tablet for her muscle pain symptom. No history of other drugs usage was taken. She notified the skin lesion two days after start of this medication and therefore she tried to use some lotion to paste on the rash. However, her skin rash was still persisted, therefore, she decided to visit the physician. Also, she developed the additional symptom as swelling lips, therefore, she decided to visit the physician at the health unit.

**Physical examination and laboratory investigation:** At first, this case was suspected for ibuprofen related skin rash. The skin lesion can be described as erythema multiforme, itching iris (central lesion surrounded by concentric rings of pallor and redness) macule lesion on both arms. Also, she concurrently developed the tender red swelling lips with some minute non-painful ulcer. This patient was asked if there were the other additional lesions at other mucosa and she replied none. She was advised to stop any drug without other medication.

**Result of therapy/ follow up:** On follow up visit, all of her symptoms disappeared completely at the follow up visit on the seventh days. This case was

diagnosed as a possible case of ibuprofen related skin rash.

## Discussion:

Ibuprofen is used to relieve the pain, tenderness, inflammation (swelling), and stiffness caused by arthritis and gout. It also is used to reduce fever and to relieve headaches, muscle aches, menstrual pain, aches and pains from the common cold, backache, and pain after surgery or dental work<sup>(1-3)</sup>. Apart from the common ibuprofen adverse effects such as GI disorder, the rare disorders including blood dyscrasias, erythema multiforme and hepatitis have also been reported<sup>(1)</sup>. Here, we reported a case of ibuprofen related skin rash, which is a rare adverse effect of ibuprofen with the incidence less than 0.1 %<sup>(4)</sup>. Presently, the real pathogenesis of this disorder has not been clarified. This adverse effect is reported only in literature, not seen in clinical trials, and is considered rare. We diagnosed this case by the present illness and follow up.

However, we did not perform any skin test or specific Ig for ibuprofen determination to confirm the diagnosis. Therefore, this case cannot be classified as a definite case of ibuprofen related erythema multiforme lesions. In this case the main differential diagnosis is the herpes oralis, which presented as the lip lesion and usually accompanied with the erythema multiforme skin lesion<sup>(7)</sup>. But in this case the lip lesion is not painful and can be used as a clue for exclusion of the herpes oralis.

Indeed, the dermatologic reaction of ibuprofen as pruritus is described in less than 1 % of the patient. However, the skin eruption as skin eruption, urticaria, erythema is more infrequent (less than 0.1)<sup>(1-3, 8)</sup>. In very serious case, the Steven Johnson syndrome can be detected<sup>(6,9)</sup>. Of interest, in this patient, a lip lesion can be identified as well.

The ibuprofen is a widely used drug at present in Thailand. Although it is considered as a safe NSAID<sup>(10 - 11)</sup> as well as Diclofenac the author has ever had experienced on the similar adverse effect in the patients taking Diclofenac as well<sup>(12)</sup>. Nevertheless, these drugs can be easily purchased as the over the counter drug. Therefore, the awareness of the physician to this widely used drug on its rare adverse effect is necessary.

## Conclusion

The author reported a possible case of ibuprofen-related skin rash. Although this case is not the new knowledge the author reported this case in order to make the general practitioner to aware the side effect of the commonly prescribed NSAIDS.

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