

[ PICTURES IN CLINICAL MEDICINE ]

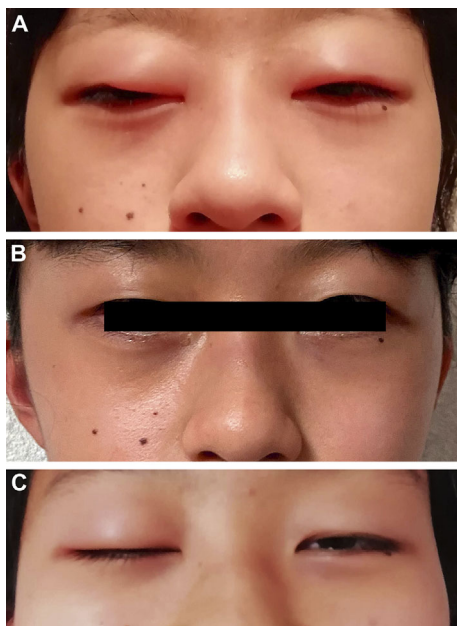
## Angioedema of the Eyelids Induced by a Ketoprofen Adhesive Patch

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**Key words:** angioedema, NSAID intolerance, skin-type, ketoprofen adhesive patch

(Intern Med 61: 769, 2022)

(DOI: 10.2169/internalmedicine.7447-21)



**Picture.**

An 11-year-old girl with a history of asthma developed eyelid edema six hours after the use of a ketoprofen adhesive patch for a left wrist sprain. Picture A was taken at the time she complained of eyelid edema. She had no symptoms of urticaria or asthma, and removal of the patch eliminated the symptom by the following morning (Picture B). Four months later, she presented with the same symptom upon waking. She had accidentally taken a loxoprofen tablet at

bedtime as a laxative. Picture C was taken four hours after she woke up. The pathophysiology of intolerance to non-steroidal anti-inflammatory drugs (NSAIDs) is thought to be based on their COX-1 inhibitory activity in arachidonic acid metabolism. However, skin-type (urticaria and/or angioedema) and airway-type (so-called aspirin asthma) NSAID intolerance rarely overlap. Among Japanese cases, skin-type is prevalent among middle-aged women, with angioedema alone accounting for 22.4% of cases. Unlike the airway type, the skin type often develops several hours after exposure. Several cases of topical ketoprofen-induced asthma have been reported, but this is the first report of angioedema (1, 2).

The authors state that they have no Conflict of Interest (COI).

### References

1. Moriya M, Aihara M, Hirota R, et al. Analysis of 76 patients with urticaria and angioedema induced by non-steroidal anti-inflammatory drugs (NSAIDs) in Japan. *Arerugi* **60**: 699-707, 2011.
2. Kashiwabara K, Nakamura H. Analgesic-induced asthma caused by 2.0% ketoprofen adhesive agents, but not by 0.3% agents. *Intern Med* **40**: 124-126, 2001.

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Received for publication March 1, 2021; Accepted for publication July 26, 2021

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