

MORNING REPORT

Itching for Pain Relief: NSAID-Induced Urticaria

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The patient is a 70-year-old female with a history of osteoarthritis who presented to her primary care clinic with a rash and swelling of her tongue and throat. The rash was episodic and intermittent, with the first episode occurring six months prior. The current episode of rash started 2 weeks prior to this presentation and had progressed steadily to cover her trunk, arms, and legs. The patient reported no new medications, foods, or changes in her daily routine during this time. On the night prior to presentation, the patient had experienced moderate swelling of her tongue and throat and decided to seek care. When seen in the clinic, she reported no difficulty breathing. On exam, there was no obvious edema of the throat; skin exam revealed raised hives and excoriations on her upper back, lower abdomen, and bilateral arms and legs. Initially, no clear etiology for her symptoms was evident. Further history revealed that the patient had been managing her osteoarthritis with acupuncture until 8 months prior, when she had been prescribed naproxen and ibuprofen, which she had taken as needed for her osteoarthritis pain. She had taken a dose of naproxen 2 hours before experiencing the throat swelling the night prior. The patient was advised to take diphenhydramine for throat swelling and to stop both naproxen and ibuprofen. The patient had subsequent improvement in her symptoms.

Non-steroidal anti-inflammatory drugs (NSAIDs) are widely prescribed in primary care settings for pain and in the United States, around 12% of adults report regularly using them. NSAIDs are also known to have many side effects and some of

the more common adverse effects, such as GI ulceration and hemorrhage, are widely recognized. Others, such as NSAID-related cutaneous reactions, occur in <1% of patients and have the potential to be missed. In patients with known chronic urticaria or asthma, NSAIDs can trigger and exacerbate symptoms. However, even in patients who are otherwise healthy, such as in this patient, NSAIDs can induce a hypersensitivity reaction that can include urticaria, angioedema, or both.

NSAID-induced urticaria in otherwise healthy patients is thought to be related largely to COX-1 inhibition, although in some cases patients may have IgE mediated hypersensitivity to specific drugs. Diagnosis is generally made through history which reveals onset of rash or angioedema within hours of taking NSAIDs. In many cases, especially in patients on chronic NSAID therapy, temporal association between NSAID use and symptoms may not be evident and requires a high degree of suspicion. In some patients, reactions are limited to a particular drug with quicker symptom-onset and can include anaphylaxis, reflecting underlying IgE involvement. Physical exam can reveal diffuse urticarial wheals as well as perioral/pharyngeal edema. Primary therapy is to reassure patients and to simply avoid further NSAID use. In patients with a suspected diagnosis, alleviation of symptoms with empiric cessation of NSAID use is highly suggestive. Symptoms can also be managed with diphenhydramine. Many patients will do well without recurrence of symptoms if NSAIDs are avoided. However, in patients with single-drug reactions, severe reac-

tions, or in patients who require long-term NSAID use, an allergy consultation can be helpful for potential desensitization or for confirmation of cross-reactivity.

NSAID-induced urticaria and angioedema is a rare side effect of NSAID use, but is one that will certainly be seen in primary care settings. While symptoms can be alarming, treatment is straightforward and symptoms resolve quickly with discontinuing NSAID use. While diagnosis may not be obvious, a high degree of suspicion in patients taking NSAIDs can aid in quick recognition and appropriate treatment and referral.

References

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