

Nasal Vestibular Furunculosis: Questions Raised by This Common But Under-Recognized Nasal Mucocutaneous Disorder

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Abstract: Nasal vestibular furunculosis is a mucocutaneous disorder commonly seen in the general population. Despite its prevalence in clinical practice, it has been inconsistently described and labeled in the medical literature. We present a case of nasal vestibular furunculosis presenting as recurrent exquisitely tender unilateral erythema and edema of the nasal tip. This symptom complex responded rapidly to topical intranasal mupirocin ointment treatment after having previously failed other treatments including a topical intranasal triple antibiotic ointment and oral doxycycline. This case is instructive as it describes a heretofore under-recognized, but not uncommon, mucocutaneous clinical entity that has been linked to more serious head and neck infections and likely has relevance to the intranasal carriage of *Staphylococcus aureus*. We review the limited published literature on this mucocutaneous disorder including its nosology and propose future lines of investigation for better defining its clinical significance and pathogenesis.

Key words: furunculosis, nasal symptoms, vestibular furunculosis

Introduction

The personal experience of the authors suggests that the clinical entity described in this report as “nasal vestibular furunculosis” is not uncommon in the general population. We present a man with recurrent nasal vestibular furunculosis accompanied by unilateral tender erythema of the nasal tip that responded to topical intranasal mupirocin antibiotic treatment after having failed an over-the-counter topical intranasal triple antibiotic ointment and oral doxycycline. The diagnosis was made based on clinical findings and rapid resolution of symptoms following intranasal mupirocin ointment treatment. This case is instructive as it describes a heretofore under-recognized, not-uncommon clinical entity that has been linked to more serious head and neck infections and could possibly have relevance to the intranasal carriage of *Staphylococcus aureus*.

Case report

A 30-year-old white male presented with a 2-3 week history of a focal area of red, swollen, tender skin on the tip of his nose. He indicated that the right side of the tip of his nose initially became painful and tender to the touch. Shortly thereafter, the skin in this area became red, puffy, and exquisitely tender to the touch. When questioned, he indicated that the inside of the right nasal vestibule underlying the nose tip had also been painful at the outset of his symptoms. He denied associated fever, chills, and malaise. His only other skin concerns were cherry angiomas on his upper trunk for which he sought cosmetic treatment. He was otherwise healthy. He had no history of psoriasis or previously having boils elsewhere on his body. He was not aware of previously having impetigo or other known cutaneous or systemic infections involving *S. aureus*. He reported that his mother has similar nasal symptoms.

The patient indicated that this same nose problem had been occurring every several months over the previous 2-3 years, with a predominance of symptoms during the winter months. The patient denied any history of nose picking. However, he noticed that his nasal symptoms would often appear after plucking his nose hair with tweezers, trimming his nose hair with a small trimmer, or picking off a scab inside his nose.



The patient had previously self-treated his nose and nasal vestibule with a generic non-prescription topical triple antibiotic ointment with little benefit. He had been treated by other physicians for the same clinical problem with oral doxycycline without improvement. Another physician thought the patient's problem related to rosacea and treated him with several topical products including metronidazole without benefit.

He was given a prescription for mupirocin ointment to be applied to the entire inner surfaces of both nasal vestibules by sequential use of cotton-tipped applicators twice daily for three consecutive days. The patient returned in one week with complete resolution of nasal pain, skin redness, and swelling.

TREATMENT

It is our experience that topical antibiotic treatments are the most effective treatment. Typically, the pain and erythema start to improve within 12 hours after the initiation of topical therapy with an antibacterial ointment or cream applied twice daily by cotton tip to the entire mucosal surface of the nasal vestibule. This treatment is best continued for 2-3 days consecutively. Initially, over-the-counter triple antibiotic creams or ointments containing neomycin, polymyxin, and bacitracin are effective. However, as noted above some individuals who have experienced nasal vestibular furunculosis intermittently for a longer period of time appear to become resistant to the therapeutic effect of over-the-counter triple antibiotic topical preparations. Starting a prescription-strength topical antibiotic preparation such as mupirocin or retapamulin ointment can provide further relief in such patients.

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