



A grassy field

## PIC QUESTION OF THE WEEK: 8/04/08

Q: What are some of the key characteristics of rhinitis medicamentosa?

A. Rhinitis, inflammation of the nasal mucous membrane, is frequently associated with allergies or induced by viral infection such as the common cold. Symptoms include rhinorrhea, nasal congestion, postnasal drip, sneezing, and pruritus of the nasal passages. Although no treatment is completely effective for viral rhinitis, patients with the allergic form may benefit from nasal corticosteroids, oral antihistamines, and topical nasal decongestants. Prolonged or improper use of topical decongestants can lead to the development of rhinitis medicamentosa (RM), also known as rebound congestion. The term was first used in 1946 and included diagnostic criteria comprised of a history of prolonged nasal medication, constant nasal obstruction, and poor response of nasal vasculature to local decongestants. While most cases are related to long term use of nasal decongestants, RM can appear in as little as 3 days of initiating therapy. Changes in the nasal epithelium of patients with RM include severe hyperplasia, loss of cilia, and increased numbers of goblet cells and submucosal glands. Patients with RM present with the aforementioned mucosal changes as well as general symptoms of rhinitis (without rhinorrhea), increased snoring, mouth-breathing, and sore throat. There are two classes of nasal decongestants, both of which can result in RM. Sympathomimetic amines (phenylephrine, epinephrine, etc.) and imidazolines (oxymetazoline, xylometazoline, etc.) are both vasoconstrictors, but act through different mechanisms. Sympathomimetic amines duplicate activity of the sympathetic nervous system through release of norepinephrine, while imidazolines produce vasoconstriction by serving as direct alpha adrenergic agonists. In addition, benzalkonium chloride (BKC), an antimicrobial preservative in many nasal sprays, may increase the risk of developing RM by inducing swelling of the nasal mucosa. Although topical decongestants are more commonly implicated in RM, the condition can arise with excessive use of oral agents as well. The initial step in the management of RM is immediate discontinuation of the causative agent. Several studies indicate that administration of an oral antihistamine/decongestant combination for 4 weeks, in conjunction with tapered doses of intranasal dexamethasone, may be useful in RM. Combination treatment with both oral and topical corticosteroids has also proven effective. Patients should be advised to limit the duration of use of topical nasal decongestants to 3 to 5 days and made aware of the risks of extended use, including the development of rebound congestion.

### References:

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