Rhinitis medicamentosa

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DESCRIPTION

A 34-year-old male with a history of allergic rhinitis presented with nasal obstruction for 2 months. According to him, he is allergic to the most common indoor allergens such as dust mites, cat and dog dander. The main symptoms were associated with difficulty in nasal breathing. He also suffered from other minor associated symptoms such as rhinorrhoea, postnasal drip, palatal itch and throat itch. Two months prior to presentation, he suffered from rhinorrhoea and was prescribed topical decongestant nasal spray. Physical examination revealed inferior turbinate hypertrophy with crust formation ([figure 1](#)). This symptom of nasal obstruction typically resolved 3–5 days after the use of intranasal decongestants. However, the patient increased both the dose and the frequency of the application of nasal sprays in the hope of relieving the symptoms, which in turn worsened the situation. Rhinitis medicamentosa is a condition characterised by nasal congestion triggered by the extensive use of intranasal decongestants.^{1,2} As the patient was not on any concomitant antihypertensives, nonsteroidal anti-inflammatory drugs or cocaine, immediate cessation of the use of topical nasal decongestants was suggested. One day after cessation of the topical nasal decongestants, rhinoendoscopy showed rebound congestion of the inferior turbinate. The patient initiated immunotherapy and medication with antihistamines and topical steroid nasal spray. The patient reported alleviation of both rhinorrhoea and difficulty in nasal

Figure 2 Physical examination revealed alleviation of both rhinorrhoea and difficulty in nasal breathing after 3 months.

Figure 3 Rhinoendoscopy 1 month after operation showed increased volume of inferior nasal meatus.

Figure 1 Physical examination revealed inferior turbinate hypertrophy with crust formation.

Learning points

- ▶ Rhinitis medicamentosa is a drug-induced and non-allergic form of rhinitis.
- ▶ Rhinitis medicamentosa is associated with prolonged use of topical vasoconstrictors, for example, local decongestants.
- ▶ Over-the-counter topical decongestants have a general warning that they should be discontinued after 3 days of use.

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breathing after 3 months (figure 2). However, the patient still complained of nasal obstruction at sleep. Thus, inferior turbinate reduction operation was done. Follow-up rhinoscopy 1 month after operation showed increased volume of inferior nasal meatus (figure 3). The patient has become asymptomatic with no recurrent nasal obstruction.

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REFERENCES

- 1 Wahid NWB, Shermetaro C. *Rhinitis medicamentosa*. Treasure Island (FL): StatPearls Publishing, 2021.
- 2 Zucker SM, Barton BM, McCoul ED. Management of rhinitis medicamentosa: a systematic review. *Otolaryngol Head Neck Surg* 2019;160:429–38.

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