Dislocation of the turbinate: A rare complication of middle turbinate surgery

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Abstract
We describe a rare complication of turbinate surgery—dislocation of the turbinate—in a woman who had undergone surgical treatment for nasal obstruction 10 years earlier. Removal of the displaced yet still-viable turbinate resulted in resolution of her symptoms.

Introduction
Nasal obstruction is a common presenting symptom in the outpatient otolaryngology department. Among the many potential causes is turbinate hypertrophy, which may in fact be the sole inciting factor. Turbinate surgery is recommended for cases of obstructive turbinate hypertrophy that are resistant to medical management. Turbinectomy is also indicated as part of more extensive procedures to manage conditions such as nasal tumors.

Postoperative complications of turbinate resection include bleeding, crusting, synechia formation, frontal duct stenosis, anosmia, airflow changes, osteitis, cerebrospinal fluid leaks, atrophic rhinitis, and recurrence of hypertrophy. We report a rare late complication of turbinate surgery: dislocation.

Case report
A 38-year-old woman presented to an outpatient otolaryngology clinic with a 10-year history of alternating bilateral nasal obstruction and facial pressure over both cheeks. After the first year of symptoms, she had undergone endoscopic sinus surgery at a different center (we were not able to obtain details of that operation). For the next 9 years, she had been treated with multiple courses of topical nasal steroids, but her symptoms failed to resolve.

The patient was seen by a nonsurgical rhinologist, who reported finding an inflamed nasal mucosa and an odd-looking epithelialized structure in the nasopharynx on nasal endoscopy. Additionally, skin tests indicated a sensitivity to grass pollen, so a topical nasal steroid was prescribed. Computed tomography (CT) of the nose and paranasal sinuses was requested, and the patient was referred to the senior author (D.A.N.) for surgical exploration.

CT detected an abnormal soft-tissue mass lying obliquely in the nasopharynx (figure 1, A). CT also revealed that the right middle turbinate was missing (figure 1, B). Endoscopic evaluation undertaken by the senior author identified the viable right middle turbinate lying in the nasopharynx with only its posterior attachment to the lateral nasal wall intact. The turbinate was excised and submitted for histologic evaluation (figure 2). Postoperatively, the patient reported a resolution of her nasal obstruction. She was especially pleased that she was able to sleep comfortably at night without feeling completely blocked.

Discussion
The differential diagnosis of a mass in the postnasal space covers a wide spectrum of pathologies, including antrochoanal polyps, nasopharyngeal cysts, benign tumors and hamartomas (e.g., angiofibromas), nasopharyngeal cancer, and foreign-body impaction. A turbinate remnant following turbinectomy is a rarely reported cause of persistent nasal obstruction. We believe it might have been caused by a complete shearing of the superior attachment of the right middle turbinate and an incomplete division of its lateral attachment at the time of the patient’s initial surgery 10 years earlier; this subsequently led to prolapse of the turbinate into the nasopharynx. The entire turbinate was viable because it had remained attached to the posterolateral nasal wall by a pedicle.

To our knowledge, a symptomatic, viable, dislocated middle turbinate lying in the postnasal space several years...
after nasal surgery has not been previously reported in the English-language literature. It can now be added to the differential diagnosis of persistent nasal obstruction following nasal surgery.

References

Figure 1. A: Coronal CT shows the abnormal soft-tissue mass lying obliquely in the nasopharynx. B: Another slice shows that the right middle turbinate is missing.

Figure 2. Photograph shows the viable right middle turbinate after it was removed from the postnasal space.