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Nasal polyposis: unusual indication for tracheostomy

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Abstract
A rare case of nasal polyposis requiring urgent tracheostomy is reported. A 70-year-old male presented to the hospital with stridor. He had a 10-year history of nasal obstruction. A large proliferative mass was found to be occupying both the nasal cavities. An emergency tracheostomy and biopsy of the lesion was performed. A computerized axial scan (CT) demonstrated that the lesion occupied the pharynx reaching up to the laryngeal inlet. To our knowledge this is the first case reported in the literature. Upper airway obstruction from nasal polyps is uncommon but can cause significant morbidity if not appropriately managed.

Key words: Nasal polyps; Tracheostomy; Tomography, X-ray Computed; Respiratory sounds, Stridor

Case report

A 70-year-old male presented with acute stridor. He gave a 10-year history of nasal obstruction. He had noted breathing difficulty, change in voice, and epistaxis a week before presentation. Clinical examination revealed a broadened nasal dorsum with a large proliferative mass occupying both the nasal cavities. The mass was irregular and friable. It was seen to extend to the nasopharynx, oropharynx and laryngopharynx. Nasopharyngoscopy was performed with difficulty via the left nostril and revealed the growth to reach as far as the laryngeal inlet obscuring a clear view of the larynx.

The patient's degree of respiratory obstruction necessitated an emergency tracheostomy, which was performed under general anaesthesia. An urgent computerized tomography (CT) scan following tracheostomy revealed an extensive pharyngeal mass occupying both the nasal cavities (Figure 1) and reaching up to the laryngeal inlet (Figure 2). A biopsy taken from the nasal mass at the time of tracheostomy was reported as benign ulcerated and inflamed nasal polyposis.

A nasal polypectomy was planned and both nasal cavities were found to be filled with extensive polyps. The nasal polyps were removed endoscopically using a 'straight shot' debrider under endoscopic control and the pharyngeal lesion was removed via the oral route. The post-operative recovery was satisfactory and the patient was decannulated the day after the surgery. His further stay in hospital (two days) was uneventful.

Fig. 1
Axial CT shows the mass filling both the nasal cavities.

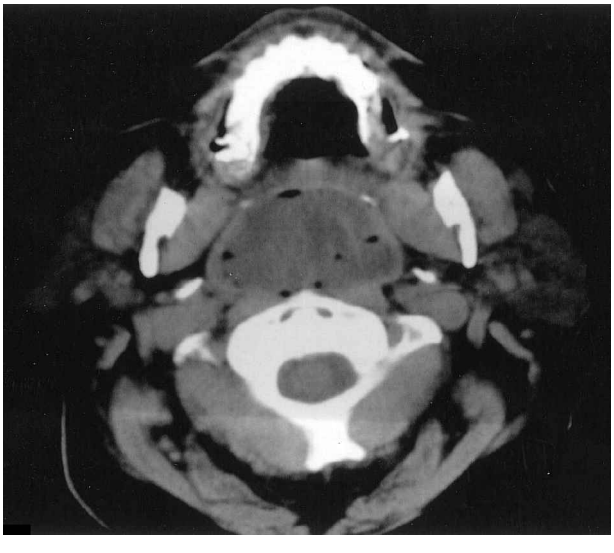

Fig. 2
Axial CT at the level of the oropharynx, showing the mass obscuring the view of the larynx.

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- **This patient had a 10-year history of nasal obstruction**
- **He presented with stridor and underwent an emergency tracheostomy**
- **The cause was found to be a mass of nasal polyps extending downwards to the laryngeal inlet**

Discussion

Nasal polyps are fairly common and are easily recognizable. Allergy, infection and vasomotor imbalance are mainly considered as contributory factors in polyp formation.[1] Antrochoanal polyp presenting with acute respiratory obstruction has been reported in a three-year-old[2]. On reviewing the literature, to our knowledge this is the first case of nasal polyposis requiring a tracheostomy to secure the airway. Lingual haematoma[3] and pleomorphic adenoma of the parotid gland[4] add to the list of unusual indications for tracheostomy.

Longstanding nasal polyps can undergo squamous metaplasia.[1,5] Our patient presented with a 10-year history which resulted in wide-spread metaplastic change altering the usual histological appearance of a benign nasal polyp.

Nasal polyps if left unattended can grow extensively and may rarely present with acute stridor and upper airway obstruction.[2] In the case of our patient, self neglect and the delay in presentation led to a life-threatening airway obstruction requiring an emergency tracheostomy. The seriousness of a condition as benign as a nasal polyp can sometimes be underestimated.

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