CASE REPORT

Prolapsed antrochoanal polyp: an unusual cause of acute adult respiratory distress

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SUMMARY

Here we describe an adult male who presented with acute dyspnoea and airway occlusion. Nasoendoscopy revealed a large antrochoanal polyp extending from his maxillary sinus to the level of the epiglottis. The patient underwent a successful semi-emergency polypectomy following initial stabilisation with medication.

BACKGROUND

This rare presentation with respiratory distress has implications for the basic management of an airway. If he had been managed with the basic manoeuvres to optimise an airway (head tilt, chin lift and jaw thrust), the effects could have been disastrous. As this could have caused the antrochoanal polyp to

Figure 2 View of the oropharynx at the time of surgery; note the dramatic reduction in size overnight.

completely occlude his airway resulting in the need for intubation or tracheostomy.

CASE PRESENTATION

A 61-year-old man presented to accident and emergency in respiratory distress. His breathing difficulty came on suddenly while brushing his teeth. He felt something in his throat, tried to clear his throat to expectorate sputum. Subsequently, he 'coughed something up and felt he was only able to breathe in one position' (sitting forward with his chin tucked into his chest). His medical history was of atrial fibrillation and hypertension. His medications included apixaban, ramipril, amlodipine and bisoprolol. He had no documented allergies. Initial examination revealed a large oedematous mucosal mass on the surface of his tongue obscuring the oropharynx. He was tachycardic (140 beats per minute) with atrial fibrillation on ECG. Respiratory rate was 25 and his SaO₂ was 100% (on 5 L of oxygen via nebuliser mask). He was strigulous on initial presentation.

Figure 1 View of the oropharynx after initial treatment in accident and emergency.

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Figure 3 Maxillary sinus opening, base of polyp.

INVESTIGATIONS

Nasoendoscopy revealed large polyps in the right nostril, but the scope could be passed beyond these revealing a normal larynx at this stage. Once stable, he was transferred to the Ear, Nose and Throat ward and re-examined. Now a large mass was

Figure 4 Antrochoanal polyp after removal.

seen posterior to a normal uvula extending down through the oropharynx ([figure 1](#)). He underwent repeat nasal endoscopic examination which showed a large polypoid mass extending from his right maxillary sinus passing through the nasopharynx to the level of his epiglottis.

DIFFERENTIAL DIAGNOSIS

The initial impression was of a swollen uvula from angioedema secondary to ACE inhibitor use.¹ Repeat examination revealed a large antrochoanal polyp to be the cause of his symptoms.

TREATMENT

He was treated initially with 5 mL of 1/1000 nebulised epinephrine, 3.3 mg of intravenous dexamethasone and 10 mg of intravenous chlorphenamine. On transfer to the Ear Nose and Throat ward, he was subsequently treated with regular epinephrine nebulisers (1 mL of 1/1000 concentration) and a further 6.6 mg of dexamethasone intravenously. His tachycardia was thought likely secondary to respiratory distress. He did not require direct treatment for rate control of his atrial fibrillation. His tachycardia settled after the treatment to reduce the size of the polyp.

OUTCOME AND FOLLOW-UP

He was taken to theatre the following morning, by this time, the polyp had decreased in size ([figures 2 and 3](#)).

It measured 10 cm at the time of removal ([figure 4](#)). He was subsequently discharged the following day with a course of prednisolone with review in 1 month to ensure complete resolution.

DISCUSSION

Antrochoanal polyps commonly present with nasal obstructive symptoms.² Rarely, and most commonly in children, they can present with airway compromise due to their size. When this does occur emergency polypectomy is the definitive treatment.³⁻⁵

This man had not complained of any nasal obstruction, rhinorrhoea or postnasal drip. These are the common symptoms associated with antrochoanal polyps. His acute presentation was probably precipitated by traumatising the polyp with attempts to clear the throat resulting in rapid enlargement. Another possibility would be bleeding into the polyp due to apixaban. There is only one other documented case of airway compromise by antrochoanal with total absence of nasal symptoms.⁶

Learning points

- ▶ In situations such as this, the optimal airway management is to allow the patient to maintain their own desired position.
- ▶ We must also ask ourselves as clinicians why the patient is adamant on maintaining one particular position.
- ▶ To have a wide scope when considering possible pathology causing this airway compromise. In this case, it was that leaning forward with chin on chest allowed the antrochoanal polyp to fall anterior and sit on the tongue, therefore not occluding the laryngeal inlet.

Contributors TTW was involved in the case and is the main author of the case. SB was involved in the acute management of the patient and was assistant in theatre; assisted with editing and writing of the main report. DG is the accident and emergency doctor involved in the initial management and stabilisation of patient on presentation; he gave advice and has a minor editing role in the composition of the final report.

Competing interests None declared.

Patient consent Obtained.

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