Nasopharyngeal fibroepithelial polyp in a New Zealand Māori man

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Abstract

Adult nasopharyngeal polyps have not previously been described in the literature. We present the case of a 42-year-old New Zealand Māori man who presented with a large, 11cm mobile mass in his nasopharynx. We discuss his history and management, emphasising the need for early assessment and intervention.

Case report

A 42-year-old Māori man presented to a rural New Zealand emergency department after coughing up a globular, mobile, sausage-shaped tissue mass that appeared to be “stuck” at the back of his throat. He held it forward out of his mouth to prevent it slipping backwards in to the oropharynx, which caused anxiety and respiratory distress (Figure 1). He gave a one-day history of recurrent, intermittent choking and gagging lasting for a few seconds at a time with the sensation of a pharyngeal foreign body that he was unable to cough up. A similar episode had occurred one year previously. Since then he had mild pharyngeal irritation and discomfort without dysphagia. He was a heavy cigarette smoker.

Fiberoptic nasopharyngoscopy demonstrated that the lesion was attached to the right nasopharyngeal wall anterior to the opening of the eustachian tube (Figure 2). No other obvious abnormalities were noted and the decision to remove this mass urgently was made. After securely clamping the mass under general anaesthesia, the soft palate was retracted, the lesion was cauterised at its base and completely excised. A formal rigid pharyngoesophagoscopy revealed no further abnormality. The postoperative recovery was uneventful.

Macroscopically the lesion was a sausage-shaped mass appearing to be covered with congested pharyngeal mucosa and measuring 11×3cm. Microscopically it was consistent with a fibroepithelial polyp covered by respiratory epithelium. The stroma comprised elasto-fibrous tissue and inflammatory cells. There was no thickening of the basement membrane or evidence of malignancy (Figure 3).
Figure 1. Pre-op securing of polyp with ribbon gauze

Figure 2. Intraoperative, macroscopic appearances of nasopharyngeal polyp
Figure 3. Microscopic appearances consistent with fibroepithelial polyp covered with respiratory epithelium

Discussion

Polyps of the upper digestive tract are classified according to their predominant histological component and include fibroma, fibromyxoma, fibrolipoma, angiolipoma or fibroepithelial polyps. Fibroepithelial polyps of the pharynx and upper airways are rare in medical literature and, to our knowledge they have not previously been described in the adult nasopharynx.

Fibroepithelial polyps are benign polypoid lesions originating from mesodermal tissue and are comprised of varying amounts of loose fibrovascular connective tissue interspersed with fat cells, covered by a squamous epithelium. They are most commonly found in the skin, gastrointestinal, lower respiratory and genitourinary systems and are predominantly seen in males aged 40 to 70, although cases involving women and children have also been described. Malignant transformation has been reported but is extremely rare.

The exact aetiology of fibroepithelial polyps is unknown although a few theories have been proposed. One such theory relates to development of polyps following focal loss of elastic tissue. Another theory is that the polyps are a mixture of various tissue elements that could represent a slowly enlarging haemartoma of the lamina propria. In the upper airway, documented lesions have been mostly been reported in the literature as arising from the hypopharynx at Killan’s dehiscence between the superior
and inferior cricopharyngeal muscles or at Laimer’s triangle between the cricopharyngeus muscle and the proximal end of the oesophagus.\textsuperscript{2,5}

Polyps of the hypopharynx in children and neonates are often discovered as asymptomatic masses by routine examinations. Extremely rare cases exist with polyps arising from the tonsillar region of the oropharynx and nasal turbinates.\textsuperscript{1,5,6} The differential diagnosis for polyps in the nasopharynx should include hairy polyps, which are also rare and usually seen in infants, although cases in adults have been described.\textsuperscript{7}

Our case highlights several key points. Despite the high risk of asphyxiation, this patient remained relatively asymptomatic for several years. Oesophageal extension of the polyp was causing some mild intermittent dysphagia. The location of the polyp in the nasopharynx enabled flexible nasopharyngoscopy to visualise the attachment of the polyp, however a barium swallow or CT scan would have delineated between the more common hypopharyngeal polyps.

In this case we felt early management was paramount due to the threat of impending airway compromise. Radiographic studies were not waited for. Multiple cases have been described in recent literature of laryngeal polyps becoming impacted in the airway with subsequent asphyxiation, cerebral anoxia and death.\textsuperscript{2,8} We therefore emphasise the need of early recognition and resection of these polyps for future cases.

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