

# Fibrovascular polyp of the oropharynx

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## ABSTRACT

**Fibrovascular polyps are benign but rare tumours of the upper digestive tract. In most of the cases reported to date, fibrovascular polyps have originated from the oesophagus or hypopharynx. In 85–90 percent of these reports, the commonest site was adjacent to the cricopharyngeal muscle. We report a very rare case, the third in the English language literature, of a fibrovascular polyp arising from the oropharynx. The patient provided a history of coughing with regurgitation of the polyp, which caused respiratory discomfort that was only relieved by swallowing it. The patient was successfully treated by excision through the peroral route. There was no recurrence in the three years of follow-up. We also discuss the various diagnostic tests available and the pathogenesis and histopathology of such lesions.**

**Keywords: oropharynx, polyps**

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## INTRODUCTION

Polyps arising from the upper digestive tract are termed as fibroma, fibromyoma, fibrolipoma, fibroepithelial polyps or angiolipoma according to their predominant histological component.<sup>(1)</sup> The term fibrovascular polyp has been recommended by the World Health Organization International Histological Classification of Tumours, and is the term broadly used for such polyps.<sup>(2)</sup> Fibrovascular polyps are the second most common benign tumours of the oesophagus (first being leiomyoma), with 80% of these occurring in the upper oesophagus or hypopharynx, and are often closely associated with the cricopharyngeus muscle.<sup>(3)</sup> They are rare tumours of the oropharynx and usually require open surgery through cervical incision due to their bulk, although some small lesions may be excised endoscopically. Regurgitation with subsequent aspiration and asphyxia are possible complications of fibrovascular polyps.

## CASE REPORT

A 24-year-old Indian man presented with complaints of difficulty in swallowing, occasional respiratory discomfort and the sensation of a lump in the throat following induced coughing for the past year. He had a



**Fig. 1** Clinical photograph of the oral cavity shows a lobulated, erythematous, smooth fibrovascular polyp of the oropharynx.

history of voice change but not that of regurgitation of food, pain during swallowing, peroral bleeding or weight loss. The patient was a non-smoker and teetotaler, with an unremarkable past medical history.

On oropharyngeal examination, a single but large lobulated and smooth polypoidal erythematous mass was seen overlying the base of the tongue (Fig. 1). The mass was non-friable and did not bleed on touch. It slipped inside the pharynx as the patient swallowed. On indirect laryngoscopy, the pedicle of the mass was seen attached to the posterior pillar of the right tonsil and was hanging down into the hypopharynx. The patient could repeatedly push the mass out by induced coughing. No cervical lymphadenopathy was noted.

Magnetic resonance (MR) imaging revealed a pedunculated soft tissue mass originating from the posterior segment of the right palatine tonsil in the oropharynx that extended inferiorly. The mass measured 7 cm in length. No lymphadenopathy was detected in the cervical region. Based on the clinical examination and imaging findings, a presumptive diagnosis of a fibrovascular polyp was made. The mass was excised *in toto* by the intraoral route under general anaesthesia. There were no perioperative complications, and histopathology of the excised specimen revealed a fibrovascular polyp. There was no recurrence in the three years of follow-up.

## DISCUSSION

Fibrovascular polyps usually arise from submucosal thickening or folding that evaginates due to poor mucosal tension and muscular support. The size of these

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evaginations further increases due to a pulling force generated by peristalsis, thus forming large polyps. Areas of diminished resistance in the pharyngeal musculature and changes in pressure during the different phases of swallowing not only initiate but also aid growth of the polyp. Two such areas of weakness in the pharyngeal musculature are the Killian's dehiscence between the two parts of the cricopharyngeus muscle and the Laimer-Haeckermann, or the Laimer's triangle between the cricopharyngeus muscle and oesophagus.<sup>(4)</sup>

However, the pathophysiologic mechanism responsible for the origin of oropharyngeal polyps is unknown.<sup>(3)</sup> In our case, the origin of the polyp from the posterior pillar behind the palatine tonsil cannot be explained by muscular weakness. The mucosal fold or lesion in this region could have enlarged with time to form a polyp, as it is subjected to recurrent traction due to the swallowing of food. Fibrovascular polyps of the oropharynx usually present with dysphagia, dysphonia, odynophagia, occasional recurrent episodes of dyspnoea, a choking sensation or retrosternal discomfort if the polyp is very large. Patients may provide a history of coughing with regurgitation of the polyp, which causes a choking sensation that only gets relieved by swallowing it. Two such cases, where patients presented to the emergency department with airway obstruction following coughing that was relieved by clenching a regurgitated fleshy mass between the teeth, have been reported.<sup>(4)</sup>

The diagnosis of fibrovascular polyps is difficult on clinical and endoscopic examinations, as the submucosal nature of the tumour and polyp mucosa may be mistaken for a normal pharyngeal or oesophageal mucosa.<sup>(4)</sup> Barium swallow shows most of the polyps as a filling defect, but it does not reflect the site of origin, which is essential for surgical planning. Computed tomography and MR imaging are considered the gold standards for determining the origin and content of the mass, as the latter shows superior soft tissue definition and the extent of the lesion due to its multiplanar capability, which

uses direct coronal and sagittal planes.<sup>(5)</sup> Histologically, fibrovascular polyps are a mixture of fibrous elements, adipose tissue and vessels lined by normal squamous epithelium. However, histopathology is important to rule out various neoplastic and non-neoplastic conditions such as hamartoma, inflammatory polyp, lipoma, haemangioma, lymphangioma, schwannoma and uncommon tumours like carcinoid tumour and chemodectoma that may present as a polyp.

Prior to surgery, it is important to ascertain the site of origin, size and vascularity of the polyp, as it aids in planning the surgical approach.<sup>(6)</sup> Oropharyngeal polyps can be removed by the peroral route. For hypopharyngeal and oesophageal polyps of less than 2 cm, endoscopic removal with ligation or electrocoagulation of the pedicle may be carried out. For complete surgical excision, the cervical approach is used for larger polyps or for those with a thick, richly vascularised pedicle. The possibility of life-threatening asphyxiation due to airway obstruction, especially in pharyngeal polyps, is an important concern and should be considered when managing this condition. Local excision is curative, and recurrence after resection is rare.

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