



# Fibrovascular Polyp in the Oropharynx and Hypopharynx: A Rare Presentation

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## Abstract

In the upper aerodigestive tract, fibrovascular polyps are uncommon yet benign tumours. The oesophagus, or hypopharynx, has been the site of fibrovascular polyps in the majority of cases reported to date. In this study, we report a case where the polyp is arising from the posterior pharyngeal wall. The patient was evaluated further with direct laryngoscopy and biopsy, where there was severe bleeding encountered, and so the patient was treated conservatively. A contrast-enhanced CT scan was performed, and the exact size and site of the lesion were identified. The patient was approached by coblation-assisted microlaryngeal surgery, and the base of the fibrovascular polyp was coagulated.

**Keywords:** Fibrovascular Polyp; Microlaryngoscopy; Coblation, Head and Neck Tumours

## Abbreviations

CECT: Contrast-Enhanced Computed Tomography; CT scan: Computed Tomography scan.

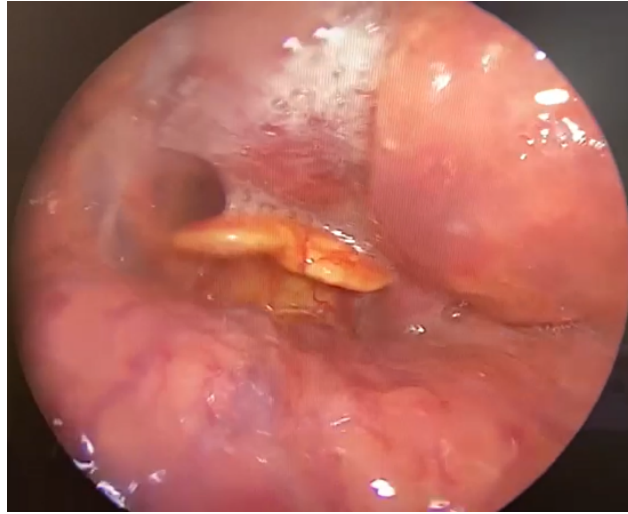
## Introduction

Fibrovascular polyps are benign tumours of the head and neck area. Clinically, patients present with dyspnoea, choking, stridor, or sleep-disordered breathing [1]. They are usually reported in the 60-70 year age group [2]. Larger size causes asphyxia, regurgitation, and respiratory distress. These polyps can cause bone and cartilage necrosis and must be distinguished from malignancy early. In 85-90 percent of the cases, they arise from the cricopharyngeal muscle, and in

rare cases arise from the oropharynx and the hypopharynx. There have been two case reports of fibrovascular polyps on the epiglottis and in the pyriform fossa [3]. They are rare tumours and are excised usually with open surgery through cervical incision due to their bulk.

## Case Report

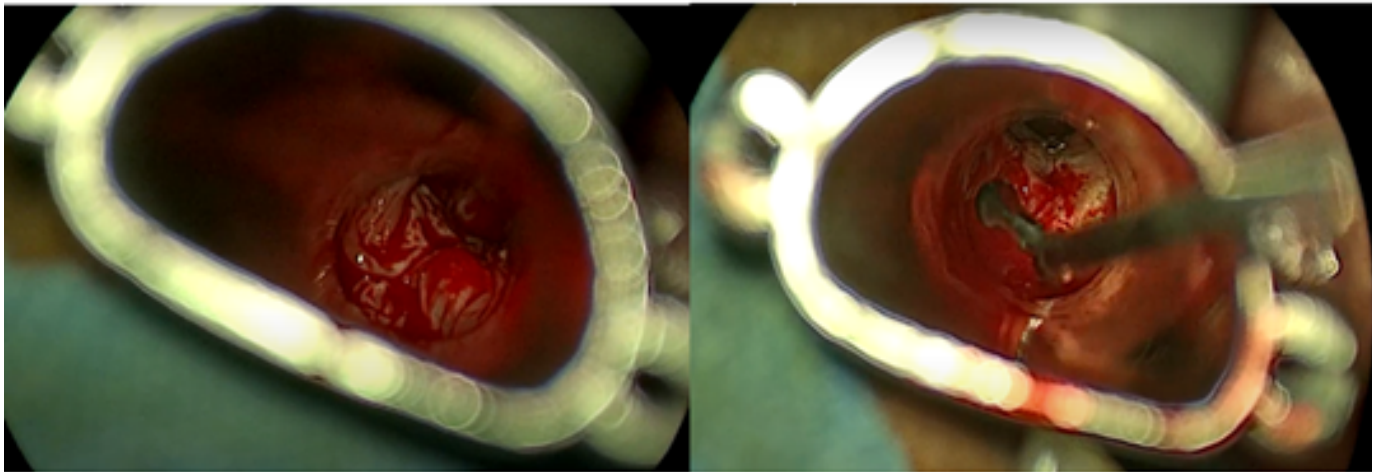
A male patient in his late 40s presented with a history of throat pain and difficulty in swallowing for 15 days. A clinical examination did not yield any findings. The patient was evaluated with video laryngoscopy in the outpatient department, where there was a cystic compressible mass with a reddish hue; the lesion was observed in the posterior pharyngeal wall, abutting the epiglottis (Figure 1).



**Figure 1:** Video laryngoscopy images showing the fibrovascular polyp in the posterior pharyngeal wall, with narrowing of the laryngeal airway and epiglottic involvement.

The patient was admitted and was evaluated with routine blood investigations, the parameters of which were within normal limits. The patient was posted for direct laryngoscopy and biopsy, where we encountered severe bleeding from the lesion, which was a real challenge in the

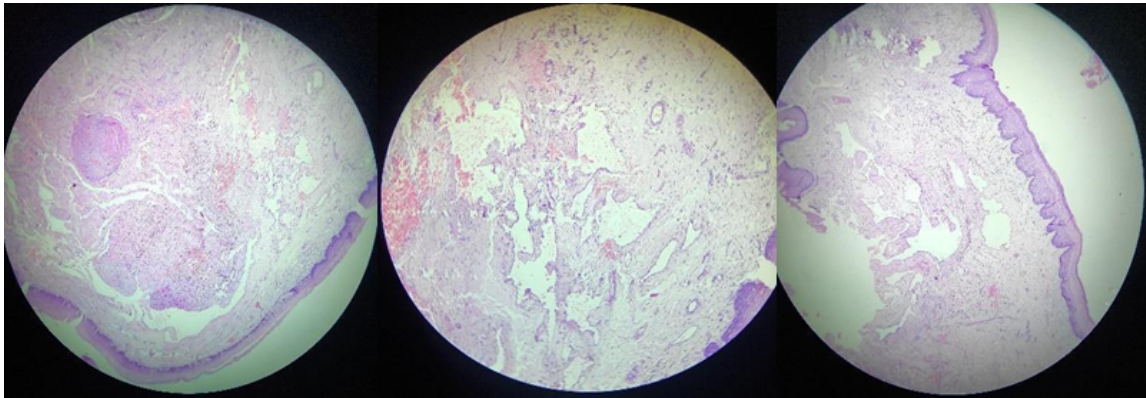
postoperative period. The patient was put on intravenous antibiotics (INJ. CEFUROXIME 1.5G), antifibrinolytic agents (INJ. TRANEXAMIC ACID 500MG), and nasogastric tube feeding post-operatively. After 3 days the nasogastric tube was removed and the patient was discharged (Figure 2).



**Figure 2:** Microlaryngoscopy images depicting the fibrovascular polyp (A) and its excision (B).

The postoperative histopathology report was used to guide further management. It showed a fibrovascular polyp of the posterior pharyngeal wall. The patient was radiologically evaluated with a contrast-enhanced computed tomography (CECT) to estimate the extent and depth of invasion of the polyp. CECT showed an ill-defined, heterogeneously enhancing lesion in the oropharynx and hypopharynx measuring 2.3 x 6.6 cm. The lesion showed a tuft of linear enhancing structure in the arterial and venous phase with diffuse irregular enhancement in the delayed phase. Multiple

pharyngeal vessels were seen extending into the lesion. Superiorly, the lesion extended from the lower level of the C2 vertebra to the level of the T1 vertebra. Anteriorly, it extended into the oropharyngeal and hypopharyngeal airway, abutting the epiglottis and bilateral aryepiglottic folds and causing mass effect on the pyriform fossa with narrowing of the laryngeal airway. Posteriorly, the lesion extended into the parapharyngeal space, involving the anterior paraspinous muscles, while posterolaterally, the lesion abutted the carotid sheath (Figures 3 & 4).



**Figure 3:** Postoperative histopathology images showing the subepithelium with cavernous blood spaces and stratified squamous epithelium lining (A and B).



**Figure 4:** Contrast-enhanced CT scans (sagittal and axial views) showing the tumor's extent and vascular involvement, with mass effect on the surrounding structures.

Lateral pharyngotomy was planned for the patient according to existing literature, but considering the site and size of the polyp, the patient was taken up for microlaryngeal surgery and excision with coblation, where the base of the polyp was identified and coagulated.

## Discussion

Fibrovascular polyps are rare benign tumours of the oropharynx and hypopharynx. They have no risk of malignant transformation but a high propensity to bleed. They arise from the diminished resistance in the pharyngeal musculature, which has been noted to be initiated secondary to changes in pressure during the phases of swallowing. The posterior wall of the hypopharynx has two areas of

inherent weakness, according to Owens et al. These are the inferior cricopharyngeal muscle and the proximal end of the oesophagus (Lamier-Hackerman) and the superior and inferior cricopharyngeal muscle (Killian's dehiscence) [4].

Magnetic resonance imaging and computed tomography are regarded as crucial tools for identifying the location and size of the polyp [5]. Fibrovascular polyps, according to histology, are a combination of adipose tissue, fibrous components, and vessels with squamous epithelium lining them [6].

It is essential to determine the polyp's size, vascularity, and place of origin in order to design the surgery [7]. The polyp is usually excised with open surgery, but in our case, we have excised the polyp with microlaryngeal surgery

with coblation-assisted complete excision with minimal bleeding. The recurrence after excision is rare in the case of a fibrovascular polyp [8].

Early diagnosis and management are essential to prevent the morbidity and mortality associated with these polyps. Based on Quijano Y, et al. [9], the open procedure is the preferred approach for recurrent polyps [9]. According to Cockbain et al. them, patients with polyps larger than 10 cm should only use the open approach since it offers a clear view of the pedicle and removes the possibility of polyp recurrence [10]. We had approached the patient by micro laryngeal surgery using the coblation technique and were successful in excising the vascular tumour completely after coagulating the base of the tumor. Despite it being a difficult approach, we were able to excise the tumour as a whole and with minimal bleeding under general anesthesia. The patient was asked to review on an outpatient basis every week for a month. The patient was evaluated with video laryngoscopy on each visit to assess for recurrence. Microlaryngeal surgery with the coblation-assisted technique had better aesthetic results for the patient, and there was no recurrence on further follow-up after the surgery.

## Conclusion

In this article we would like to highlight that FVPs need thorough investigation and planning before approaching it. An endoscopic approach may be considered in those cases that are limited to the posterior pharyngeal wall.

## Learning Points

- Any growth in the posterior pharyngeal wall must be assessed fully before deciding on a plan of treatment.
- Powered instruments should be kept on standby while approaching lesions on the posterior pharyngeal wall for optimal control of bleeding.
- The Microlaryngoscopy approach is aesthetically superior to a lateral pharyngotomy and may be considered as a first-line approach towards the management of posterior pharyngeal wall polyps.

## References

1. Mangar W, Jiang D, Lloyd RV (2004) Acute presentation of a fibroepithelial pharyngeal polyp. *J Laryngol Otol* 118(9): 727-729.
2. Hoseok I, Kim JS, Shim YM (2006) Giant fibrovascular polyp of the hypopharynx: surgical treatment with the biapproach. *J Korean Med Sci* 21(4): 749-751.
3. Jabbour J, Chappell JR, Busby M, McCubbery NW, Brown DF, et al. (2019) Glottic Obstruction from Fibroepithelial Polyp. *Am J Case Rep* 20: 219-223.
4. Owens JJ, Donovan DT, Alford EL, McKechnie JC, Franklin DJ, et al. (1994) Life-threatening presentations of fibrovascular esophageal and hypopharyngeal polyps. *Ann Otol Rhinol Laryngol* 103(11): 838-842.
5. Farzal Z, Ulualp SO, Rakheja D (2014) Fibroepithelial polyp of the epiglottis. *Am J Case Rep* 15: 340-342.
6. Borges A, Bikhazi H, Wensel JP (1999) Giant fibrovascular polyp of the oropharynx. *AJNR Am J neuroradiol* 20(10): 979-1982.
7. Shamji F, Todd TR (2002) Benign Tumor. In: Pearson FG, et al. (Eds.), *Esophageal Surgery*. 2<sup>nd</sup> (Edn.), Philadelphia: Churchill Livingstone, pp: 637-654.
8. Rice TW, Murthy SC (2005) Surgical treatment of benign esophageal diseases. In: Sellke FW, et al. (Eds.), *Sabiston & Spencer Surgery of the Chest* 7<sup>th</sup> (Edn.), Philadelphia: Elsevier Saunders 1: 583-609.
9. Quijano Y, Ferri V, Duran H, Diaz E, Fabra I, et al. (2021) Recurrent giant fibrovascular oesophageal polyp: benefits and pitfalls of a multimodal approach. *Int J Surg Case Rep* 83: 105935.
10. Cockbain AJ, England R, Dexter SPL, Sarela AI (2017) Surveillance is important after surgical excision of giant fibrovascular polyps of the esophagus. *The Annals of Thoracic Surgery* 104(4): e341-e343.