

# MRI Features And Treatment Of Pharyngeal Haemangioma

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## Abstract

Pharyngeal haemangioma is a comparatively a rare tumor of the head and neck region . The treatment modalities include surgical removal , sclerotherapy and laser therapy . We report a case of large pharyngeal haemangioma extending from the hypopharynx to the oropharynx. A 60- year old male presented with progressive dysphagia of 1- year duration . A large pharyngeal haemangioma was diagnosed on laryngoscopy and magnetic resonance imaging . Sclerotherapy using 5% mono ethanolamine oleate decreased the tumor volume immediately , without showing any tendency to re grow during last 18 months of follow up .

## INTRODUCTION

Haemangiomas are generally considered to be developmental malformations or hamartomas rather than true neoplasm . In the year 1904 , Albrechet defined hamartomas as a tumor like malformation composed of tissue indigenous to the part, but lacking the growth potential of the neoplasm . Haemangiomatous lesions may arise in the skin or anywhere in the mucosa of the upper aero-digestive tract ( 1 ).

The most likely vasoformative tumor to be submitted for biopsy from the oral or pharyngeal region is the haemangioma ( 2 ). Most true Haemangiomas require no intervention , but 10 – 20 % requires treatment because of their size , location , behavior , degree of functional compromise or complications . The treatment options include conservative management by monitoring , steroids , cryotherapy , laser therapy , sclerotherapy , and surgical excision ( 3 , 4 ).

## CASE REPORT

A 60- year old male presented with the complaint of progressive dysphagia for last one year , which was more for solid food than for liquids . There was no history of haematemesis , dyspnoea , haemoptysis , or hoarseness of voice . Indirect laryngoscopy revealed a purple coloured pharyngeal mass , “4 × 2 cm” in size , arising from right lateral wall . Laboratory investigations were normal . Direct laryngoscopic examination confirmed a broad based purplish lobulated mass , about “5 × 2 cm” in size with intact overlying mucosa , arising from the right lateral wall of the

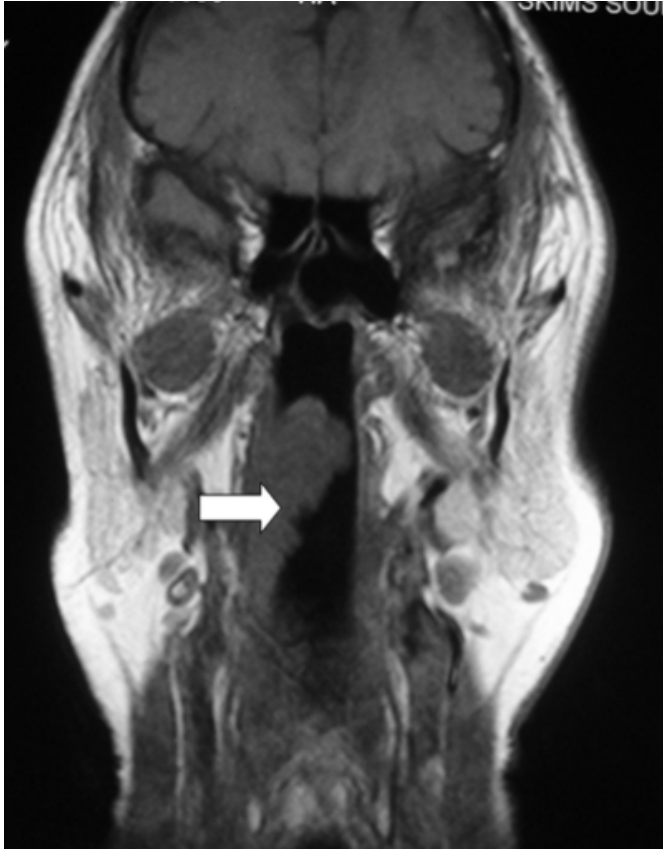
hypopharynx . It was extending superiorly into oropharynx . Prominent vessels and scattered areas of haemorrhage were seen over its surface . A wedge biopsy was taken from the mass , which confirmed the diagnosis of haemangioma . There were no phleboliths within the tumor .

M R I revealed a well defined lobulated hyper intense mass lesion about “5 x 2 cm” arising from right lateral wall of hypopharynx with a broad base , extending cranially into oropharynx “( fig 1 )”. In T1-WI the lesion was iso-intense to muscles ( fig 2 )”. Post-Gadolinium images “( fig 3 & 4 )” show heterogeneous and significant enhancement .

The patient was subjected to sclerotherapy using 5% mono ethanolamine oleate under general anaesthesia . The tumor decreased in volume immediately after sclerotherapy . The patient is on regular follow-up since last 18 - months , and has not shown any tendency to increase its volume .

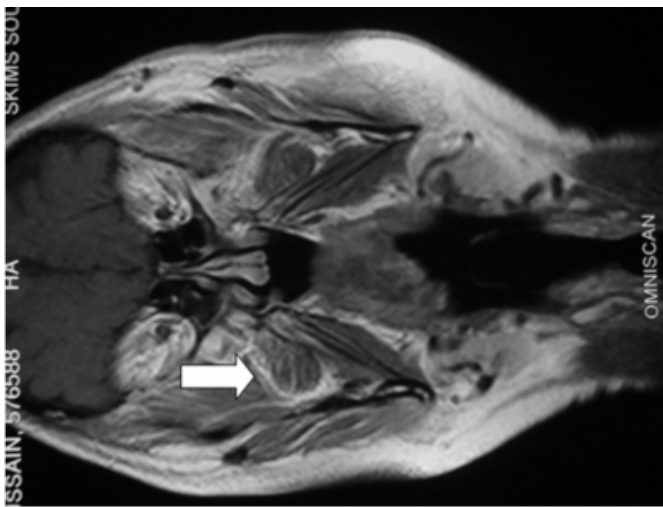
**Figure 1**

Figure 1 . STIR coronal images reveals a well defined lobulated hyper intense mass lesion about 5 x 2 cm arising from right lateral wall of hypopharynx with a broad base , extending cranially into oropharynx



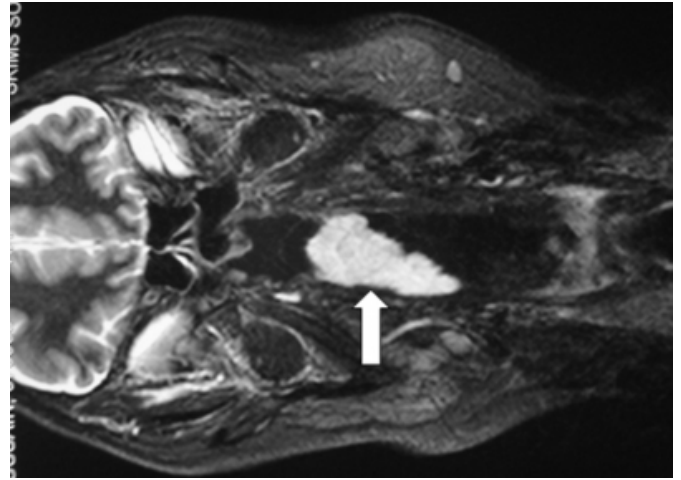
**Figure 2**

Figure 2 . T1WI showing that lesion is iso-intense to muscles



**Figure 3**

Figure -3; Post-Gadolinium images show heterogeneous and significant enhancement



**Figure 4**

FIGURE 4 : . Post-Gadolinium images show heterogeneous and significant enhancement.



## **DISCUSSION**

Haemangiomas of the head and neck region represent about third of all Haemangiomas in humans . They usually present at birth but may arise at any age . The oral or pharyngeal haemangioma has an older age at diagnosis than lesions

from other sites. In adults, the mucosal haemangioma most often arises from the frequently traumatized mucosal sites including the lip mucosa (63% of oral cases), the buccal mucosa (14% of cases) and the lateral borders of the tongue (14% of cases), but it may occur at any oral or pharyngeal location. Congenital and neonatal lesions do occur, especially in the lips and parotid glands. The mucosal haemangioma is typically a soft, moderately well circumscribed, painless mass which is red or blue in colour. The more superficial ones are often lobulated and will blanch under finger pressure. Deeper lesions tend to be dome-shaped with normal or blue surface and they seldom blanch. The lesion is usually less than 2 cm in greatest dimension, but may be so extensive as to encompass much of the oral/pharyngeal tissues. Congenital lesions tend to keep pace with body growth, while adult-onset lesions tend to slowly enlarge over a period of months or years (2).

Pharyngeal Haemangiomas usually present with bleeding. They can also present with discomfort in the throat, dysphagia, disturbance in phonation or airway obstruction. Other rare presentations, especially in children, include bleeding disorder as in Kassabach Merritt Syndrome, DIC (disseminated intravascular coagulation), and high output cardiac failure (1, 2). Our patient presented only with progressive dysphagia of one year duration.

Plain radiography is fairly of limited for evaluating haemangiomas of pharyngeal region and can show a soft tissue shadow in the pharynx. MRI with and without intravenous gadolinium is useful to evaluate the lesion exact site, size, extent and the associated anomalies. MRI also

helps in differentiating from other high-flow vascular lesions (4). Diagnosis is confirmed by direct endoscopy and biopsy of the lesion (5).

The treatment modalities for Haemangiomas include surgical excision, sclerotherapy, irradiation, cryosurgery, laser ablation, and injection of corticosteroid "(1-5)". We treated our patient with sclerotherapy using 5% monoethanolamine oleate under general anaesthesia. The tumor decreased in volume immediately after sclerotherapy and has not shown any tendency to increase its volume since last 18-months of regular follow up. Sclerotherapy is a relatively simple and effective method, that is a valuable and promising treatment for haemangioma in selected cases (5). It is also very cost effective as compared to cryotherapy or laser ablation, which is an important factor in developing countries for management of these less surgically accessible lesions.

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