Journal of Advanced Research in Medicine
Volume 11, Issue 2 - 2024, Pg. No. 6-8
Peer Reviewed & Open Access Journal

Case Study

Masson's Haemangioma of Vocal Cord: A Case Report of a Rare Clinical Entity

Shaila Sidam[1], Ujjawal Khurana[2], Anjan Kumar Sahoo[3], Rohini Nair[4]

[1,3,4]Department of Otorhinolaryngology, AIIMS, Bhopal, India.
[2]Department of Pathology, AIIMS, Bhopal, India.
DOI: https://doi.org/10.24321/2349.7181.202406

I N F O

Corresponding Author:
Shaila Sidam, Department of Otorhinolaryngology, AIIMS, Bhopal, India.
E-mail Id:
shailasidam74@gmail.com
Orcid Id:
https://orcid.org/0000-0001-9946-8292
How to cite this article:
Sidam S, Khurana U, Sahoo A K, Nair R. Masson's Hemangioma of Vocal Cord: Case Report of a Rare Clinical Entity. J Adv Res Med 2024; 11(2): 6-8.

Date of Submission: 2024-04-19
Date of Acceptance: 2024-05-20

A B S T R A C T

Intravascular papillary endothelial hyperplasia (IPEH), also known as Masson's tumour. It is a rare benign tumour of vascular origin, with rarity in the glottis. We report two cases, one of a 54-year-old male, and another of a 35-year-old female with complaints of voice change and fatigue for the last few months. On laryngoscopic examination, a reddish, smooth polypoidal mass was seen attached to the vocal cord. Both the patients underwent microlaryngeal surgery for excision. Histopathology revealed it as Masson's tumour. Post-surgery patients underwent speech therapy.

Keywords: Masson's Tumour, Intravascular Papillary Endothelial Hyperplasia

Introduction

Intravascular papillary endothelial hyperplasia (IPEH), also known as intravascular angiomatosis, Masson's pseudo angiosarcoma, Masson's tumour or vegetant intravascular hemangioendothelioma is a rare benign lesion of vascular origin, caused by an extensive proliferation of endothelial cells in normal blood vessels or vascular malformations.[1] Described in 1923 by Pierre Masson, it accounts for 2% of skin and soft tissue tumours with a vascular origin.[2] Clinically, it appears as a firm nodule that appears red or blue on the skin and is slow-growing. The lesion has a propensity to occur in the head, neck, fingers, and trunk. However, occurrence in the larynx is very rare with only 3 reported cases in the literature.[1,3,4]

Case Reports

Case 1

A 54-year-male presented to the outpatient clinic with complaints of change in voice and vocal fatigue for eight months. There was no history of cough, dysphagia, dyspnoea or haemoptysis. There was no history of smoking or vocal abuse. He was a diabetic on oral hypoglycaemic. On laryngoscopy examination, a reddish, smooth polypoidal mass was seen in the left vocal cord, obscuring the view of the anterior commissure with critical impingement of glottic chink. Both the vocal cords were mobile. Neck examination was unremarkable with no significant lymphadenopathy. All the blood investigations were within normal limits. The patient underwent microlaryngeal surgery for excision. It was seen to be attached to the left vocal cord at the junction of anterior one-third and posterior two-thirds, obscuring the anterior commissure and prolapsing into the subglottis (Figure 4). It was excised *in toto* and sent for histopathological examination. Histopathological examination revealed compartmentalised thrombus formation with slit-like spaces and delicate papillae projecting into the lumen suggestive of intravascular papillary endothelial hyperplasia. (Figure 1,2) The patient was initiated on regular speech therapy, after 48 hours of surgery. Follow-up after one and three

months revealed no residual or recurrent mass in the vocal cord with a normal voice.

Case 2

Another patient was a 35-year-old female who presented to our outpatient department with complaints of change in voice for the past five months. The complaints were initiated after an episode of voice abuse in a celebration. There was also vocal fatigue on prolonged use of voice. The patient was not a professional voice user with no other co-morbidities. On fiberoptic examination, a red polypoidal lesion was noticed at the junction of the anterior one-third and posterior two-thirds of the right vocal cord with broad based. It was excised *in toto* by microlaryngeal surgery and sent for histopathological examination. The examination showed Masson's haemangioma formation in occasional vessel and was reported as a vocal nodule, angiomatous type with Masson's haemangioma formation (Figure 3,4). The case was advised speech therapy and follow-up did not reveal any residual or recurrent polyp formation, with normal voice.

Discussion

Intravascular papillary endothelial hyperplasia is a peculiar benign intravascular process that bears a remarkable resemblance to angiosarcoma. In 1923, Pierre Masson first described an intravascular papillary proliferation formed within the lumen of inflamed haemorrhoidal plexus in a 68-year-old man and named the lesion "vegetant intravascular hemangioendothelioma".[5] Through numerous further studies, scholars stated that this lesion is a vascular proliferation reaction following traumatic vascular stasis, rather than a true neoplasm and the term intravascular papillary endothelial hyperplasia was coined by Clearkin and Enzinger in 1976.[6] This slow-growing, benign lesion is characterised by exuberant proliferation of endothelial cells with papillary formation leading to thrombus and degeneration in the vessel wall. IPEH can be divided into three different categories: the pure form that occurs within a dilated vascular space, the mixed form that appears as a focal change in a vascular malformation; and the undetermined form, which is of extravascular origin.[1]

PEH may occur in any location in the body and there is a predilection for the deep dermis and subcutis of the head, neck, fingers and trunk. It has no age tendency and shows a slight female predominance with a male/female ratio of 1:1.2.

Histologically, intravascular papillary endothelial hyperplasia has a characteristic exuberant endothelial proliferation, in a tuftlike or papillary projection within the lumen of medium-sized veins and is nearly always associated with a thrombus. The papillary structure and exuberant endothelialisation of intravascular papillary endothelial hyperplasia are necessary to rule out angiosarcoma.[5] Demonstration of vascular origin with proliferative index by immunohistochemically can contribute to accurate diagnosis. CD 31 and CD 34 are expressed in mature lesions and are markers for identification. The prognosis of IPEH is good because it does not progress to malignancy or recur after resection. They are cured by local excision.

Conclusion

We have reported two rare cases of IPEH of the vocal cord, which constitute to the best of our knowledge the third case to be reported in the vocal cord and the fourth case to be reported in the literature in the larynx.

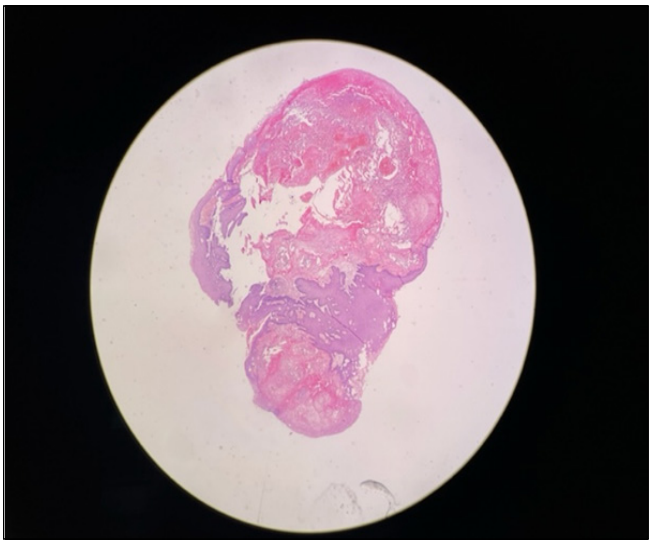

Figure 1.Whole Mount View of the Polypoidal Lesion Covered by Stratified Squamous Mucosa which is Focally Ulcerated (H&E; X20)

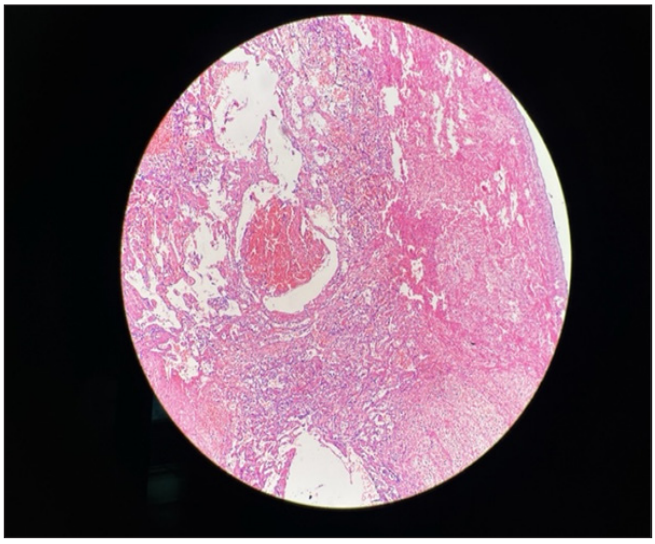

Figure 2.Subepithelium show Filled Spaces with Thrombi Formation. There is of Thrombi with Endothelium forming Papillary Projections (H&E; X50).

ISSN: 2349-7181
DOI:https://doi.org/10.24321/2349.7181.202406

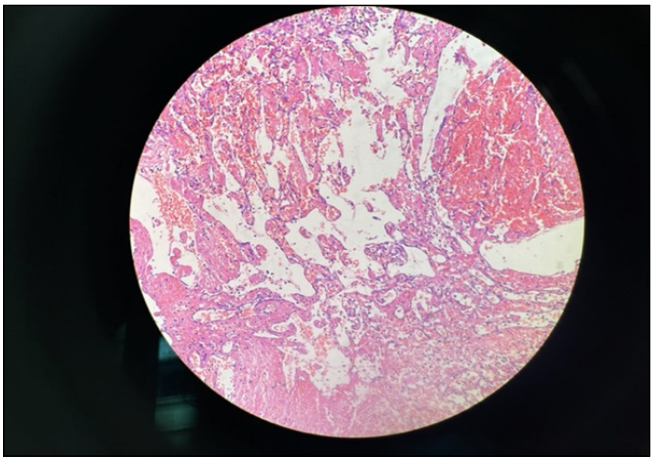

Figure 3.Masson's Trichrome highlight the Reddish Fibrin (MT; X50)

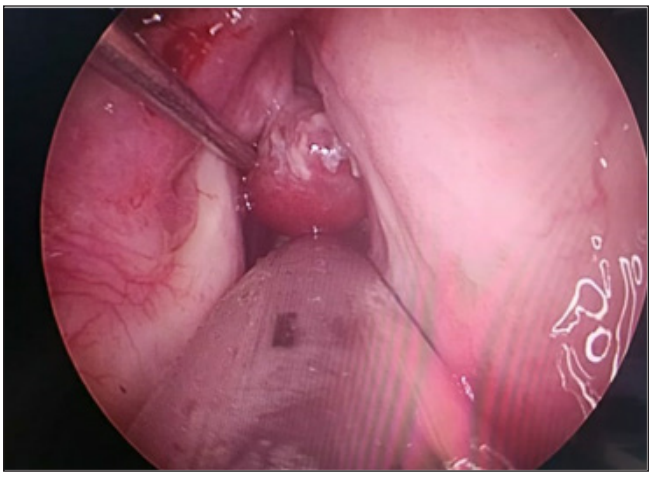

Figure 4.Laryngoscopic Examination showing Smooth Reddish Pale Arising from the Anterior Part of Left Vocal Cord and Prolapsing into Subglottis (Mass Sized 8 mm x 12 mm)

Conflict of Interest: None

References

1. Tedla M, Bežová M, Biró C, Tedlová E, Eng CY, Zeleník K. Intravascular papillary endothelial hyperplasia of larynx: case report and literature review of all head and neck cases. Otolaryngol Pol. 2014;68(4):200-3. [PubMed] [Google Scholar]
2. Yücesoy C, Coban G, Yilmazer D, Oztürk E, Hekimoglu B. Intravascular papillary endothelial hyperplasia (Masson's hemangioma) presenting as a lateral neck mass. JBR-BTR. 2009;92(1):20-2. [PubMed] [Google Scholar]
3. Shim HK, Kim MR. Intravascular papillary endothelial hyperplasia of the vocal cord: a case report and review of the literature. Am J Case Rep. 2019 Nov 12;20:1664-8. [PubMed] [Google Scholar]
4. Shamanna K, Krishnamurthy M, Deshpande GA. A rare case of intravascular papillary endothelial hyperplasia (Masson's tumor) of vocal cord. Indian J Otolaryngol Head Neck Surg. 2024;76(1):1317-20. [PubMed] [Google Scholar]
5. Hong SG, Cho HM, Chin HM, Park IY, Yoo JY, Hwang SS, Kim JG, Park WB, Chun CS. Intravascular papillary endothelial hyperplasia (Masson's hemangioma) of the liver: a new hepatic lesion. J Korean Med Sci. 2004;19(2):305-8. [PubMed] [Google Scholar]
6. Clearkin KP, Enzinger FM. Intravascular papillary endothelial hyperplasia. Arch Pathol Lab Med. 1976 Aug;100(8):441-4. [PubMed] [Google Scholar]

ISSN: 2349-7181
DOI: https://doi.org/10.24321/2349.7181.202406