



CASE REPORT

Lateral Nasal Wall Lobular Capillary Hemangioma - A Rare Case Report

Niveda Ramachandran, Parvathi A, Manoj Kumar

Abstract

Lobular capillary hemangioma is a benign rapidly growing lesion, rare to present as mass filling nasal cavity and paranasal sinuses. They are usually vascular malformation that can occur over face. The involvement of nose and paranasal sinus is rare. It has a property to grow rapidly in a short time and recurrence is also seen. Here we discuss a large lobular capillary hemangioma of the left lateral wall of nasal cavity presenting with recurrent epistaxis.

Keywords

Lobular Capillary Hemangioma, Epistaxis, Embolisation

Introduction

It's a vascular lesions in head and neck that originates from blood vessels and lymphatics. Haemangiomas are benign vascular tumours with endothelial proliferative lesions of skin and mucous membrane or abnormal overgrowth of blood vessels. It was first described as human botryomycosis by Poncet *et al.*^[1] Nasal cavity haemangiomas synonymous- lobular capillary haemangiomas, pyogenic granuloma, capillary haemangiomas, cavernous haemangiomas, epulis gravidarum. Pathogenesis is associated with pregnancy, trauma, oral contraceptive pills, hormonal factors and injuries^[2,3]. Common in paediatric and adolescent male. Incidence is 2-5% in females. In nasal cavity its mostly in anterior nasal septum, but its occurrence in lateral wall have also been reported, like middle turbinate, posterior part of nasal septum and roof of vestibule especially in highly vascularized areas. Sinonasal capillary hemangioma accounts for 10% of head and neck hemangioma, 65% in nasal septum, 18% lateral nasal wall, 16% vestibule. Symptoms include recurrent nasal bleeding, nasal obstruction, mucopurulent nasal discharge, facial pain, unilateral facial swelling, epiphora, hyposmia and headache. Uncontrollable bleeding and anaemia is a problem encountered. We report a patient, presented with left sided nasal bleeding for 4 months on and off, imaging suggested vascular tumour. We emphasise on modality of management of such tumours.

Case report

A 41 year old female patient, homemaker, known hypertensive on regular medications with no significant family history or bleeding disorders, presented with intermittent left nasal bleed for past 4 months in which

last episode was spontaneous in nature, profuse in quantity and underwent conventional nasal packing in a primary hospital and referred to our hospital for further management. Patient also had a history of progressive left sided nasal obstruction, left sided facial pain and facial swelling. There was no history of fever, loss of weight, loss of appetite, visual disturbance, diplopia and smell disturbances.

Patient was taken up for nasal pack removal and minimal active bleeding noted on touching the mass and a reddish fleshy mass noted extending till vestibule covering entire left nasal cavity, right nasal cavity was normal and left nasal cavity was repacked. Examination of ear, oral cavity, oropharynx, neck and cranial nerve examination were normal. Routine blood investigations were sent. CE-MRI PNS with CT screening done and showed, A fairly defined soft tissue dense lobular homogeneous attenuation lesion in left ethmoid sinus and left maxillary sinus filling left nasal cavity- representing a vascular pathology with erosion of surrounding bony structures and recti muscle involvement. Under GA debulking done and specimen was sent for HPE and repacked. Since patient had uncontrolled bleeding, BIPP (bismuth iodoform paraffin paste) packing was done for the patient and 2 times BIPP pack removal and repacking done and 6 units of blood transfusion was done over course of stay in the hospital. Due to its vascular nature, permanent embolization of feeder vessel was done by an interventional radiologist. Under LA, through femoral approach, permanent embolization of left internal maxillary artery done with polyvinyl alcohol particles (PVA). Following which BIPP pack was removed and diagnostic endoscopy evaluation

Department of Otorhinolaryngology, Saveetha medical college and hospital, Saveetha Nagar, Thandalam, Chennai - 602105, Tamil nadu

Correspondence to: Dr.Niveda Ramachandran, Postgraduate Resident, Department of Otorhinolaryngology, Saveetha medical college and hospital, Saveetha Nagar, Thandalam, Chennai - 602105, Tamil nadu India

Manuscript Received: 27.11.2022; Revision Accepted: 25.2.2023;

Published Online First: 10 July, 2023

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Cite this article as: Ramachandran N, Parvathi A, Kumar M. Lateral Nasal Wall Lobular Capillary Hemangioma - A Rare Case Report. JK Science 2023;25(3):197-98.

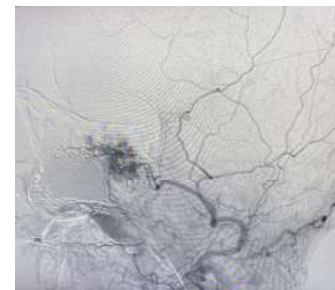
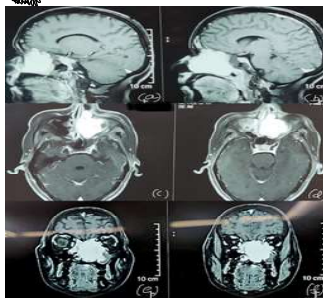
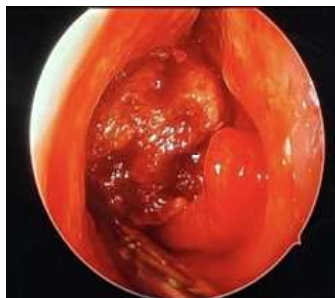


Fig 1 : Preoperative Diagnostic Image Showing A Soft Tissue Mass Extending Till Just Above The Vestibule Fig 2: (A) And (B) Shows Sagittal Images (C) And (D) Shows Axial Images (E) And (F) Shows Coronal Images On Ce-Mri Showing Enhancing Lobulated Well Circumscribed Mass Filling The Left Nasal Cavity. Fig 3: Embolisation Picture Showing The Feeder Vessel - Left Internal Maxillary Artery

showed no evidence of residual tumour and bleeding subsided. Histological examination showed fragments of fibrocartilaginous tissue with areas of haemorrhage, fibrin and focally lobules of capillary sized blood vessels lined by flattened to cuboidal epithelium with no evidence of atypical/ malignancy-suggestive of benign vascular lesion with features of capillary hemangioma. Post operative DNE on follow up of patient showed no evidence of residual disease or recurrence.

Discussion

Capillary haemangiomas are rare, fast growing, non neoplastic tumours presenting as vascular malformation most commonly in heads and neck region. Previously it was said to emerge after fungal infection, hence described as botryomycosis hominis by Poncet *et al.*^[4] Mullioned *et al* classified hemangiomas into three subtypes; capillary hemangioma which is seen originating from hypervascular septal regions, cavernous hemangioma from lateral wall of nasal cavity and mixed form.^[5] Frankl *et al* described the capillary hemangioma as pyogenic granuloma but term is a misnomer as it is neither infectious nor granulomatous. Based on its histology it was named as lobular capillary haemangiomas by Miller.^[6] Out of 3000 cases of nasal polyps, 23 were sinonasal haemangiomas by Ash and Old.^[7] Inference from a retrospective study of 40 patients by Puxeddu *et al*, most common site in nasal cavity was anterior nasal septum, nasal vestibule, inferior turbinate, middle turbinate and unciniate process.^[8]

Prevalence in pregnancies is 0.5%-5%. After age of 40, it affects both genders equally, but a female predominance is seen in 3rd decade when compared with males, who are more commonly affected below 18 years. Lesion has two distinct areas histologically - a lobular region with capillary proliferation and an ulcerative region with inflammatory granulation tissue beneath an ulcer with neutrophilic infiltrates and irregularly dilated blood vessels. Grossly they appear as a polypoidal mass with ulcerations and microscopically capillary lobules. Here HPE showed lobules of capillaries and confirmed as lobular capillary hemangioma. Due to its high vascular nature, permanent embolization of feeder vessel was done. For Lobular capillary hemangioma, preoperative embolization is rarely employed, but has played an important role in lesions like JNA. Profuse bleeding encountered with no diagnosis, preoperative embolization is a useful adjunct in preventing massive haemorrhage during biopsy and surgical resection. Angiography is

useful for preoperative embolisation, it reduces risk of intraoperative bleeding during surgery. Tamaki *et al* observed lobular capillary hemangioma, an unresectable tumour was made resectable by preoperative embolization. Complications include soft tissue necrosis, cranial neuropathy, stroke, blindness. Most cases reported had undergone endoscopic surgical excision either through electrocoagulation, cryotherapy, LASER, excisional surgery following embolization^[9]. Recurrence rate is 0-42%^[9].

Conclusion

Lobular capillary hemangioma is a rare lesion with aetiology unknown. Detailed history, diagnostic nasal endoscopy and radiological imaging should be done to plan further management. This case has been reported to focus on role of embolization prior to excision of mass. For nasal haemangiomas, embolisation followed by endoscopic surgical excision is the choice of treatment. This case report describes appropriate planning treatment and management of local sinonasal lesion and also general condition of patient.

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