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ENT

PREVALENCE OF INVERTED PAPILLOMA IN A TERITIARY HOSPITAL

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ABSTRACT Inverted papilloma is a benign tumour of nasal cavity arising from lateral wall of nose, septum or anywhere in nasal cavity and sinuses. Pathogenesis is unknown even though many causes are explained like viral infection by HPV, HSV, chronic rhinosinusitis. These have capacity of malignant transformation 10 to 15%.

Epstein–Barr virus (EBV), smoking, occupational, environmental and industrial exposures, cell cycle related proteins, angiogenic factors and chronic inflammation.

Aims :

To findout prevalence of inverted papilloma among nasal masses

To evaluate the sex incidence among these cases

To know symptomatology compared to other nasal masses

Methods –

ASRAM Medical College, Eluru, Dept of ENT.

This is a prospective study over 2 years period (2015 Sept to 2017 August)

Sample size – total no of 50 cases with nasal mass was studied

Methodology – All the patients having nasal masses were taken for the study. All the malignant masses were excluded from the study. Thorough clinical examination and investigations were done and data were analyzed.

Results

- The incidence of nasal mass to be higher in Males (58%). Especially males majority seen in inverted papilloma (5cases) and 1 female.
- Most common nasal mass is nasal polyp,followed by 2nd most common is inverted papilloma.

KEYWORDS : Inverted Papilloma, Lateral Rhinotomy, Nasal Polyp

INTRODUCTION

Inverted papilloma is a benign epithelial growth extending into the underlying stroma of the nasal cavity and paranasal sinus. The tumor is well known for invasiveness, tendency to recur and association with malignancy[1]. In 1854, Ward first documented the occurrence of inverted papilloma in the sinonasal cavity[2].

A recent study by Sham *et al*. found that outdoor and industrial occupations were significant risk factors, whereas smoking, drinking alcohol, allergic rhinitis, sinusitis, nasal polyps, nonsinonasal papilloma, and nonsinonasal malignancy were not significant factors[3].

Human papilloma virus (HPV), alterations in tumor suppressor gene p53, and chronic inflammation. HPV serotypes 6, 11, 16, and 18 are the most commonly associated with IP, and serotypes 16 and 18, similar to cervical cancer, are more commonly associated with malignancy[4].

OBSERVATION & RESULTS – total number no of cases studied 50 with thorough clinical examination and diagnosis made after examining histopathologically.

INCIDENCE OF NASAL MASSES	MALES	FEMALES
Ethmoidal polyp	16	13
Antrochoanal polyp	5	4
Fungal granulomatous polyp	1	1
Tuberculous granuloma		1
Squamous cell pap		1
Inverted pap	5	
Hamartoma		1
Angiofibroma	2	
Percentage	58%	42%

Most common benign tumor is nasal polyp, 2nd more common is inverted papilloma, 5 males and 1 female patient which is squamous type of papilloma.

DISCUSSION :

The total number of cases presenting with nasal mass in the present study is 50. This is about 0.2% of the total attendance in the ENT out-patient department of ASRAM medical Hospital during the period November 2015 to October 2017. Further 2.2% of the total cases presenting with nasal obstruction or stuffiness eventually showed a nasal mass.

12% of cases were inverted papilloma in these one is squamous papilloma others are inverted papillomas. The mucosal lining of nose and paranasal sinuses is known as Schneiderian membrane.

Papillomas arising from this membrane is very unique in that they are found to be growing inwardly and hence the term inverted papilloma. Site of occurrence i.e. Lateral wall and septal papillomas. Septal papillomas remain confined to the nasal septum and may very rarely involve the roof and floor of the nasal cavity.

All are class II except 1 case seen is class III

Krouse[5] staging- Class Tumour Extent

I- Tumour confined to nasal cavity

II- Tumour limited to ethmoid sinus and medial and superior portion of maxillary sinus

III- Tumor involved the lateral and inferior aspect of maxillary sinus, or involvement of frontal or sphenoid sinus

IV Tumour outside nose and sinuses, and include malignancy

In present study one case had intra cranial spread with cerebrospinal fluid leak, presented with watery discharge.Sanguinous discharge is more common in Inverted Papilloma and Infected Ethmoidal Polypi

We noticed six cases of papilloma. They are also called as schneiderian papilloma:

subtypes are inverted (47-78%), fungiform (6-50%) and oncocytic (2-26%). However we found one case of Squamous and five cases of Inverted type. Papilloma can be Epithelial or Inverted. The incidence of Inverted Papilloma is more common than Epithelial (Tondon et al) [6]. It is a benign neoplasm of respiratory mucosa, which constitutes 1-5% of sinonasal tumors.

Age & sex incidence :

All our cases were males, one patient is female and the age is between 40 to 50 years of age group. Similar age incidence was reported by *Banhiran W* etal [7].

Male : female ratio **5: 1ratio**. Inverted Papillomas are 4 to 5 times more frequent in males, with greater prevalence in Caucasians, between their 5th and 6th decades of life [8]. There is a male preponderance of this tumour similar to Batsakis JG (ed)[9]

In our study there was 1 case extension into cranial cavity. All of them were unilateral. Usually 3% develop carcinoma after excision, which has only a 25% survival rate. Nasal septum tumors are usually mushroom-shaped and exophytic with thin central core of connective tissue.

However in our study all were arising from lateral wall of nose with inward epithelial growth. Inverted Papilloma originates from the nasal cavity lateral wall, and it secondarily affects the maxillary, ethmoidal, frontal and sphenoid sinuses [10].

We managed the cases with excision , lateral rhinotomy, en bloc excision of lateral nasal wall, removal of mucosa in ipsilateral paranasal sinuses.

All cases are benign in nature, 1 case of inverted papilloma had intracranial extension by eroding cribriform plate. CT scan imaging showed erosion, for evaluating CSF leak we did CT cisternography and repaired the leak site.

Recurrence is also common we had 2 cases recurrence again and operated next time

CONCLUSION :

- Prevalence of inverted papilloma among benign nasal masses is 12% and it's the 2nd most common tumor.
- Males are more commonly associated with nasal mass58% and inverted papilloma(5cases).
- Most common symptoms associated are nasal obstruction, nasal discharge of mucopurulent type and sanguinous sometimes

Benign in nature, we dint noticed any malignant transformation

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References

1. Melroy CT, Senior BA. Benign sinonasal neoplasms: A focus on inverting papilloma. Otolaryngol Clin North Am. 2006;39:601–17. x. [PubMed]
2. Ward N. A mirror of the practice of medicine and surgery in the hospitals of London. London Hosp Lancet. 1854;2:87–99
3. A case-control study of the risk factors associated with sinonasal inverted papilloma. *Sham CL, Lee DL, van Hasselt CA, Tong MC Am J Rhinol Allergy. 2010 Jan-Feb; 24(1):e37-40. [PubMed] [Ref list]*
4. p53 alteration and human papilloma virus infection in paranasal sinus cancer. *Caruana SM, Zwiebel N, Cocker R, McCormick SA, Eberle RC, Lazarus P Cancer. 1997 Apr 1; 79(7):1320-8.* [PubMed] [Ref list] Molecular pathologic study of human papillomavirus infection in inverted papilloma and squamous cell carcinoma of the nasal cavities and paranasal sinuses. *Furuta Y, Shinohara T, Sano K, Nagashima K, Inoue K, Tanaka K, Inuyama Y Laryngoscope. 1991 Jan; 101(1 Pt 1):79-85.* [PubMed] [Ref list]
5. Development of a staging system for inverted papilloma. *Krouse JH Laryngoscope. 2000 Jun; 110(6):965-8.* [PubMed] [Ref list]
6. Tondon PL, Gulati J, Mehta N. Histological study of polypoidal lesions in the nasal cavity. Indian Journal of Otolaryngology and Head & Neck Surgery. 1971 Mar 1;23(1):3-11
7. Endoscopic sinus surgery for benign and malignant nasal and sinus neoplasm. *Banhiran W, Casiano RR Curr Opin Otolaryngol Head Neck Surg. 2005 Feb; 13(1):50 4.* [PubMed] [Ref list] Inverted Papilloma: A Clinico-Pathological Dilemma with Special Reference to Recurrence and Malignant Transformation S. N. Saha, Anirban Ghosh, Sharmila Sen, S. Chandra, Debabrata Biswas Indian J Otolaryngol Head Neck Surg. 2010 Oct; 62(4): 354–359. Published online 2011 Jan 1. doi: 10.1007/s12070-010 0056-y PMCID: PMC3266087
8. Phillips PP, Gustafson RO, Facer GW. The clinical behavior of inverting papilloma of the nose and paranasal sinuses: report of 112 cases and review of the literature. The Laryngoscope. 1990 May 1;100(5):463-9
9. Batsakis JG (ed) (1980) Squamous cell papillomas of the oral cavity, sinonasal tract and larynx. In: Tumors of the head and neck-clinical and pathological considerations, 2nd edn. The Williams & Wilkins Company, Baltimore, pp 130–43 [Ref list]
10. Mohanty R, Dubey KP, Das SK, Chawla SC. Sinonasal inverted schneiderian papilloma. Indian Journal of Otolaryngology and Head & Neck Surgery. 2004 Apr 1;56(2):161-3.