

Unusual Presentation of Inverted Papilloma in A Young Patient: A Case Report



Medical Science

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ABSTRACT

Inverted papilloma is a common benign neoplasm of nose and paranasal sinuses usually seen in elderly, male patients. Presentation in young patients is rare, so usually not suspected. Herewith we are reporting a similar unusual presentation of inverted papilloma in a 25 yr old male. With preliminary investigations diagnosed as unilateral, multiple nasal polypi, fungal aetiology and posted for FESS. Histopathology report turned out to be inverted papilloma. He was followed up regularly with diagnostic nasal endoscopy and till 6 months there was no evidence of any recurrence.

CASE REPORT : A 25 yr old male patient from a tribal village presented with, unilateral nasal obstruction, of 10 yrs duration. Nasal obstruction on left side, insidious in onset, slowly and gradually progressive. H/o loss of sense of smell and nasal discharge on left side present. No h/o trauma or epistaxis. No h/o headache or visual disturbances. He is a carpenter by occupation and non smoker.

On examination, external nose is normal. Nasal septum is deviated to right side. There are multiple nasal polypi, soft to firm in consistency on left side. Not pain sensitive and no bleeding on touch. Choana is free. CT scan revealed heterogeneous opacity of middle meatus area, with collection of fluid in maxillary and frontal sinuses on left side. Provisional diagnosis of fungal sinusitis is made, and posted for FESS. Other common differential diagnosis for unilateral nasal obstruction in young patients for long duration is deviated nasal septum, nasal polyp, fungal sinusitis, turbinate hypertrophy, concha bullosa, rhinolith, benign tumors of nose and paranasal sinuses.



Fig 1:CT. Coronal view findings



Fig 2: Intra op picture

Under general anaesthesia and 1% lignocaine with 1:200000 adrenaline infiltration for vaso constriction, firm mass with polypoidal surface is removed from left middle meatus area, all ethmoidal sinuses opened. Posterior ethmoids also affected. Superficial polypoid portion is more soft than the deep portion which is firm in consistency. Lamina papyracea is intact. Maxillary osteum widened. Frontal recess explored and secretions sucked out. Specimen sent for histopathological examination. Treated with antibiotics and analgesics and antihistamines. For our surprise biopsy report came as inverted papilloma, which is rarely seen in young patients. As we have removed all ethmoidal sinuses on left side without leaving any abnormal tissue, there was no recurrence till 6 months. After 6 months review endoscopy done, revealing a normal middle meatus area with no signs of recurrence.

DISCUSSION :

Papillomas are the second most common benign neoplasms of the sinonasal tract after osteoma, even though it represents the most common surgical indication for a benign sinonasal tumor. They constitute about 1-4% of sino nasal neoplasms. More common in males, 3-5:1. mostly above 50 yrs age group. They are classified into 3 histological types. Exophytic or fungiform, columnar cell and inverted papillomas. Other names for inverted papillomas are Ringertz tumor, Schneiderian papilloma, Transitional sell papilloma. Exact etiology is not known but in few cases human papilloma virus, types, 6,11,16 and 18 have been implicated after molecular biological analysis. Risk of malignant transformation is there in about 8-12% of cases. Malignant transformation is more associated with HPV 16 and 18.

80% of cases most common site of origin is lateral wall of nose, at the root of middle turbinate. Inverted papilloma arising from nasal septum constitutes 5-15% while bilateral papillomas are seen in less than 5% cases. Most common clinical presentation is unilateral nasal obstruction, insidious onset and slowly progressive. Other common symptoms are nasal discharge, headache, decreased sense of smell. Best means of examination is diagnostic nasal endoscopy. We can examine the growth completely and can take a biopsy.

Imaging characteristics: In CT scan, area of focal hyperostosis may actually indicate origin of IP. Diffuse bone thickening is a feature of chronic sinusitis. Other features of IP are intratumoral calcifications, thinning, bowing and bone erosion. Unilateral mass lesion with lobulated surface on CT suggests IP.

MRI changes are columnar pattern. A sinonasal mass with a convoluted cerebriform pattern on T2 or enhanced T1 weighted images suggests IP. It is typically intermediate in signal intensity on both T1 and T2 weighted images and homogeneously enhances post gadolinium. Necrosis in a mass with such an appearance strongly suggests coexisting malignancy.

Typical histopathological appearance is inversion of multi layer epithelium into underlying stroma. Squamous epithelium and transitional epithelium predominate. Basement membrane is intact. Stroma is well vascularised with lymphocytes and plasma cells.

Staging system by Krause, for Inverted papilloma (IP)

T1-- IP confined to nasal cavity. No malignancy

T2-- IP limited to ethmoid sinus and to medial and superior parts of the maxillary sinus. No malignancy

T3-- IP extends into frontal or sphenoid sinuses or involves inferior or lateral parts of maxillary sinus. No malignancy

T4 IP associated with malignancy – or IP spreads outside the nose and paranasal sinuses with or without malignancy

TREATMENT : Surgical excision is the treatment of choice. Lateral rhinotomy or midfacial degloving with medial maxillectomy was the treatment of choice conventionally. But since 1980s, endoscopic excision is being used more frequently.

Complete excision of tumor without leaving any remnants reduces the chances of recurrence of growth. Traditional standard approach is lateral rhinotomy or midfacial degloving for complete excision of the growth. Recent development is minimally invasive endonasal endoscopic surgery. In both approaches recurrence rates are almost similar in stage 1 and 2. stage 3&4 require open approach or combined approach. Advantage of endoscopic surgery is multi angled and magnified view and clear differentiation of diseased and normal mucosa, no facial scar and faster recovery.

There are basically three different types of endoscopic resections available for inverted papilloma. They are type 1: when the tumor involves middle meatus, ethmoids, superior meatus, sphenoid or a combination of these structures. Even lesions protruding into the maxillary sinus without direct involvement of mucosa can also be removed with this approach. Type 2: when the tumor involves maxillary sinus, primary or extension from the middle meatus but not involving the anterior or lateral walls. This is similar to endoscopic medial maxillectomy. Type 3: Sturman Canfield operation or endonasal Denkers op, where medial part of anterior wall of maxillary sinus is also removed to gain access to anterior and lateral walls of maxillary sinus. This is recommended for tumor extensively involving the anterior aspect of maxillary sinus.

Regardless of the approach selected for inverted papilloma excision, the operation should end with creation of a largely marsupialized cavity that will give wide access during follow up for endoscopic inspection, which should be done periodically to diagnose residual or recurrent tumor early.

CONCLUSION : Inverted papilloma is a common tumor in elderly people, but can present in young people like in our case. Unilateral nasal obstruction, insidious onset, slowly progressive, nasal septum in midline, no turbinate hypertrophy, one should exclude neoplastic growth in any age group. HRCT scan of nose and paranasal sinuses is the most important investigation to come to a conclusion. Inverted papilloma can be excised by endoscopic nasal surgery precisely and completely, with less recurrence rates.

REFERENCE

1. Frank, C. A., Oliver D. J. and Jack, G (1985): Usual anatomic presentation of inverted papilloma – Head and neck Surgery, 243:45. | 2. Benninger MS, Roberts JK, Sebek BA, Levine HL, Tucker HM, Lavertu P. Inverted papillomas and associated squamous cell carcinomas. Otolaryngol Head Neck Surg 1990;103:457-461. | 3. Thomas, C. and Calceterra, W. T. (1980): Varied presentation of inverted Papilloma, 90:53–60. | 4. Alba JR, Diaz MAA, Perez A, Rausell N, Bastera J. Inverted papilloma of the sphenoid sinus. Acta Oto-Rhino-Laryngologica Belg 2002;56:399-402. | 5. Cummings BW, Goodman ML. Inverted papillomas of the nose and paranasal sinus. Arch Otolaryngol 1970;92:445-449. | 6. Baruah P, Deka RC. Endoscopic management of inverted papillomas of the nose and paranasal sinuses. ENT-Ear Nose Throat J 2003;82:317-320. |