Research Paper

Clinicopathological Study of Sinonasal Masses in Tribal Areas

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ABSTRACT

Background: Nasal cavity and paranasal sinuses are site for variety of mass lesions presenting as polyp or neoplastic lesion. The present study was done on patients presenting to ENT OPD, Pacific medical college and hospital, Udaipur (Rajasthan) January 2018 to December 2019. Inflammatory lesions were more common in comparison to neoplastic lesions with antrochaoanal polyp being most common variety among inflammatory lesion, nasopharyngeal angiofibroma in benign lesions and squamous cell carcinoma in malignant lesions.

Keywords : Carcinoma, Paranasal Sinus, Polyp, Sinonasal Mass

INTRODUCTION

The mass in nasal cavity is a common finding in patients presenting to ENT setups. This can present either in the form of polyp or benign and malignant lesion. The nasal cavity and paranasal sinuses (PNS) form a single functional unit with common pathological process affecting both, most of which are inflammatory. The respiratory mucosa being exposed to range of infections, chemical irritants, mechanical and traumatic influences leads to formation of nasal polyps. This inturn leads to prolonged oedema of mucosa and submucosa of nose and paranasal sinuses. The prevalence rate of nasal polyp is about 2 %[1].

Neoplasms affecting the PNS and nasal cavities are rare in comparison with sinonasal inflammatory disease but benign neoplasia of the nose and PNS is relatively not uncommon[2]

The presenting features and symptomatology of all sinonasal masses are similar, i.e., nasal obstruction, rhinorrhea, blood stained nasal discharge, epistaxis, oral symptoms, facial swelling, orbital symptoms, ear symptoms, etc.[3]

The sinonasal malignancies mimic polyp in symptoms and can remain silent for months to years and this leads to delay in diagnosis of tumours and can prove dangerous for patient if not intervened timely.

AIMS AND OBJECTIVES

The present study was done with the aim of studying the incidence of sinonasal masses (SNM) and histopathologically diagnose variety of masses.

Material and Methods

The present study was carried out on patients who presented to ENT OPD, Pacific Medical College and Hospital, Udaipur. Sixty five patients were selected for present study. Thorough clinical history with meticulous clinical examination was done along with appropriate investigations. Clinical examination included complete ear nose throat along with anterior and posterior rhinoscopy. The routine laboratory examination was done along with radiological examination like X Ray PNS (Water' s view), X Ray nasopharynx (Lateral view), CT Scan of nose and paranasal sinuses wherever necessary and nasal endoscopy

using 0 degree and 30 degree nasal endocscopes to visualize the condition of sinuses. The provisional diagnosis was made after clinical examination and radiological investigations but final diagnosis was made after histopathology of soft tissue sent for biopsy.

After identification, nasal mass was removed and was sent for histopathological examination.

RESULTS

The male predominance was seen with male contributing to 41 (63.07 %) and female contributing to 24 (36.93 %) with overall male to female ratio of 1.7. As per the age distribution most of the patients belong to 21-30 year age group 18 (27.7 %), 12 (18.4 %) belong to 31-40 year age group, 10 (15.35 %) belong to 41-50 year, 9 (13.84 %) belong to 51-60 year, 3 belong to 61 year and above. The patients belonging to 0-10 year age group 3 (4.61%) and 11-20 year age group were 10 (15.38 %) . The maximum cases 53 (81.54 %) were diagnosed with inflammatory lesions while 12 (18.46 %) were diagnosed with neoplastic lesion. Among 12 neoplastic lesions the benign lesion was seen in 4 (33.34 %) cases and malignant lesion in 8 (66.67 %) cases.

As per the number of masses, the sinonasal mass was found to be multiple in 16 cases (24.62 %) while 49 (75.38 %) were single in number.

As per laterality the unilateral mass were more common 48 (73.84 %) as compared to bilateral 17 (26.16 %). Left side 28 (58.33 %) was found to be more common than right side 20 (41.67 %).

Maximum cases presented with nasal blockadge in 62 cases , rhinnorhoea in 54 cases, headache in 45 cases, sneezing in 20 cases, epistaxis in 10 cases, change in sense of smell in 8 cases, ear findings in 18 cases.

Maximum incidence among inflammatory lesion was found to be of antrochoanal polyp 27 (50.9 %) (Fig 1,2), ethmoidal polyp 15 (28.3 %), angiomatous polyp in 6 (11.32 %), rhinosporidiosis 2 (3.78 %), rhinolith in 2 cases (3.78 %) and rhinoscleroma in 1 case (1.89 %).

Among neoplastic lesions, benign lesion was nasopharyngeal angiofibroma 2 cases (16.67 %), inverted papilloma in 2 cases (16.67 %). Among malignant lesion squamous cell carcinoma was seen in 5 cases (62.5 %) and adenocarcinoma in 2 cases (25 %) and undifferentiated carcinoma 1 cases (12.5 %).

Figure 1 Nasal Endoscopic View of Antrochoanal Polyp

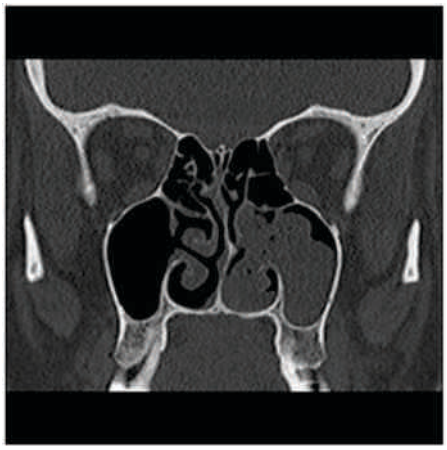

Figure 2 CT Scan Coronal Section Left Side Polyp.

DISCUSSION

The predominance of males was observed in our study similar to previous studies[4]

Most common age group was 21-30 year with neoplastic lesions most commonly seen in 41-50 year age group which is in accordance with studies done in past[5]. In other studies[6] it was found to be most common in 11-20 year age group.

The incidence of inflammatory lesion was more compared to neoplastic lesions. This was higher in comparison to other studies[4]

Non-neoplastic inflammatory polyps were usually unilateral and single, while allergic polyps were usually bilateral and multiple in agreement with the analysis of Frosini et al.[7]

In previous studies examination revealed bilateral SNM in 44.4 % and unilateral in 55.3 % out of which 31.6 % were found on the right side and 23.6 % on left nasal cavity[8]

The most common complaint was nasal obstruction which was similar finding as past studies[9]

As per previous studies (10) the most common benign SNM as the nasal polyp; 51.7 % of the cases revealed ethmoid polyp and 20.4 % revealed an antrochoanal polyp with second most common SNM as nasopharyngeal angiofibroma 18 cases (12.24 % cases), schneiderian papilloma 5 cases (4 cases were of inverted papilloma and one rare case that was an everted papilloma). 3 cases of rhinosporidiosis and 4 cases of rhinoscleroma were encountered.

The clinico-histopathological correlation in our case study was 98 %. A past study revealed 1.1% of patients with histopathologic findings different from their clinical diagnosis and led to alteration in management (10). In another study a difference of 0.3 % was found between histopathology and radiologicl and clinical findings and examination[11].

The histopathological examination still remains the gold standard for confirming and refuting the diagnosis. Thus, a detailed history, clinical examination, proper imaging, and most importantly thorough histopathologic evaluation are essential part of work up of patients, so that, a required and timely intervention is done.[4]

CONCLUSION

The similarity in initial presentation of non neoplatic and neoplastic masses can lead to delay in diagnosis of certain tumours. Proper clinical diagnosis, radiological investigations and histopathological examination together remains the key for confirmatory diagnosis for better outcome in future.

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