

HISTOPATHOLOGICAL ANALYSIS ON SINONASAL MASSES WITH SPECIAL STAINS AND IMMUNOHISTOCHEMICAL MARKERS.

ABSTRACT

Introduction :

A variety of non-neoplastic and neoplastic conditions involves the sinonasal region by virtue of their anatomic and histologic diversity.¹ Majority of them are non-neoplastic lesions. The incidence of nasal polyps is 1% - 4% in general population.⁴ In the neoplastic lesions, benign tumors were more frequent than malignant tumors.¹ Carcinomas of nasal cavity and paranasal sinuses account for 0.2-0.8% of all malignant neoplasms and Squamous cell carcinoma represents 3% of all head and neck neoplasms.⁴ By Clinical, radiological and endoscopic modalities it is impossible to distinguish simple nasal polyps from neoplastic polypoidal lesions. Histopathology is the mainstay of definitive diagnosis.¹ Special staining such as PAS , Mucicarmine and Immunohistochemical staining profile plays the most important role in accurate diagnosis.⁴

Aim and objectives:

1. To study the pathology of various nonneoplastic and neoplastic lesions.
2. To study the frequency and distribution of various nonneoplastic and neoplastic lesions.
3. To study the rare and unusual lesions.
4. To analyse the difficult cases with the help of Immunohistochemistry.

Place of Study: Department of Pathology,

Thanjavur medical college hospital ,Thanjavur .

Study period : June 2015 to May 2017

Design of Study : Prospective and observational Study

Ethical committee clearance: Prior approval obtained from ethical committee

Sample: A total of 160 Nasal endoscopic biopsy specimens and excision specimens from patients diagnosed with sinonasal mass in ENT department at Thanjavur medical college hospital,Thanjavur were included in the study.

Inclusion criteria :

- Cases of sinonasal masses presented to ENT department .
- Primary lesions of nasal cavity and paranasal sinuses confirmed with Diagnostic nasal endoscopy.
- All age groups were included.

Exclusion criteria:

- Lesions of nasal skin
- Lesions of vestibule of nose, as these tumors probably were related more to skin primary tumors than to nasal carcinoma
- Secondary invasion (metastasis) of the sinuses and nasal cavity.
- Recurrence cases after: Radio therapy / Chemotherapy

Fixative used: All the tissues were fixed in 10% buffered formalin , processed, stained with H & E. Immunohistochemistry special stains (PAS) were used wherever necessary.

Results :

Out of total 160 cases of sinonasal masses 119 (74.4 %) were Non Neoplastic Lesions and 41 (25.6 %) were Neoplastic Lesions. Schneiderian papilloma 10 cases (6.3%) were the commonest Benign Neoplastic lesions and Squamous Cell Carcinoma were the commonest Malignant Neoplastic lesions. 11 cases (6.8%) with male preponderance in age group between 40 to 60 years. IHC with Cytokeratin AE1 / AE3 was very helpful in accurate diagnosis of Undifferentiated carcinoma and special stain with PAS was very helpful in fungal lesions.

Conclusion :

This study mainly highlights the prevalence of Benign and Malignant sinonasal masses. Histopathological evaluation is mandatory for accurate diagnosis and in certain cases such as Undifferentiated carcinomas, Immunohistochemistry became the ultimate diagnostic technique so that a correct and timely intervention can be made for patient management.

Key words :

Non neoplastic , Neoplastic , Schneiderian papilloma , Benign, Malignant, Immunohistochemistry.