

Histopathological typing of palatal swellings: Analysis of 52 cases

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Abstract:

Histopathological typing of 52 cases presented clinically with palatal swelling was performed retrospectively. The haematoxyline and eosin stained histological sections of related cases are retrieved from the files and re-examined microscopically.

The study focused on the pathological processes involved in these swellings. The results showed three pathological processes involved in these cases; namely, neoplastic, cystic and reactive. Of these, the neoplastic were slightly more common and comprise 38.8% of cases, tumors of minor salivary glands were more frequent, while the cystic and reactive comprise 34.3% and 26.9% respectively. Of the cystic lesions, the majority was of odontogenic origin, where as the reactive category cases of papillary hyperplasia of the palate were more frequent.

Keywords:

Palatal swelling, neoplastic, cystic, reactive lesion.

Introduction:

Palate is prone to a variety of diseases because of its position in the oral cavity or the frequency which it is obscured by a denture. Such position makes it more vulnerable to many irritant such as foreign bodies, food and tobacco smoke, which may produce a disease occasionally. When palate covered by denture it may offered protection but in other hand it may itself be a source of irritation⁽¹⁾.

Swelling is an increase in the size of the tissue due to inflammation, cyst, neoplasm, allergic reaction or edema⁽²⁾. A differential diagnosis should always be include all of the possible aetiological agents that lead to over-normal contour of the involved tissues⁽³⁾.

There are many diseases which are significantly more prominent or common in one anatomical site of the oral cavity than others. Swelling of the

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palate leads to discomfort for the patient in variable aspects like speech, deglutition or others. Access for accurate examination of the swelling in the palate is less difficult than in other areas of the oral cavity⁽⁴⁾. However, a differential diagnosis of palatal swellings need an experienced and specialized knowledge since such swelling range from simple periapical abscess to a seriously neoplastic lesion and malignant type occasionally. Therefore, swelling in the palate is wise not to be neglected or regarded as simple lesion unless the appropriate diagnostic measures are followed.

The incidence of neoplastic swelling among palatal masses is probably more common than other types of swellings. Through analysis of 102 palatal swelling it was found that tumours of minor salivary glands were the most common and comprise around half of the cases⁽⁵⁾.

This retrospective study was designed to find out the histopathological typing of 52 palatal swelling cases and the frequency of occurrence for each type.

Materials and Methods:

The materials consist of 52 cases presented clinically with palatal swelling upon whom an incisional biopsy had been performed and

subjected for histopathological examination.

The cases were collected from records available in the Oral pathology Unit, College of Dentistry, University of Mosul from 1989-1999. The haematoxyline and eosin stained microscopic sections of the related cases were retrieved from the files and were re-examined to make sure that the original histopathological reports were accurate. All the microscopic sections were re-examined carefully by the author. The histopathological typing of the lesions were recorded in special forms which involves in addition the age, sex and accurate site of the swelling. The obtained data then were analyzed.

Results:

Following analysis of the obtained data. It was found that the age of the cases range between 15-75 years, of these 31 were males and 21 were females. The lesions were categorized into three main groups according to the pathologic process involved. These groups were namely neoplastic, cystic and reactive swellings.

Table (1) shows the distribution of swelling according to pathological process involved and sex of the patients. The benign neoplastic were more common than the malignant type

as 13 out of 20 neoplastic cases were benign and 6 cases were malignant. While the remaining one case was of

intermediate as shown in Table (2), which show also the type of tumors.

Table (1): Distribution of the swelling in relation to the sex and pathologic process involved.

Type of swelling	Sex		Total
	Male	Female	
Neoplastic	15	5	20
Cystic	10	8	18
Reactive	6	8	14
Total	31	21	52

Table (2): Type and number of neoplastic swellings in relation to their aggressiveness

Type of neoplasm		No. of cases	Total
Malignant	Squamous cell carcinoma	3	6
	Osteogenic sarcoma	1	
	Adenoid cystic carcinoma	2	
Intermediate	Mucoepidermoid tumor	1	1
Benign	Squamous cell papilloma	3	13
	Pleomorphic salivary adenoma	8	
	Monomorphic adenoma	1	
	Ameloblastoma	1	
Total			20

The cystic lesions consist mainly of odontogenic type as 15 out of 18 were odontogenic and the remaining 3 cases were non-odontogenic Table (3) shows the

number and type of cystic lesions. The reactive swelling were the least in number and Table(4) shows the number and type of these lesions.

Table (3): The type and numbers of cystic swelling in relation to their origin

Type of cyst		Number	Total
Odontogenic	Radicular	10	15
	Dentigerous	4	
	Residual	1	
Non-Odontogenic	Nasopalatine	2	3
	Globulomaxillary	1	
Total			18

Table (4): Type and numbers of reactive swellings

Type of reactive swelling	Number
Papillary hyperplasia of the palate	7
Leaf fibroma	1
Peripheral giant cell granuloma	2
Pyogenic granuloma	3
Fibroepithelial polyp	1
Total	14

Discussion:

The particular location and anatomy of the palate, as it consists of soft tissues, epithelium, connective tissue, minor salivary glands, in addition to bony part, makes it liable for varieties of pathological processes.

This study involves only cases presented clinically as swelling on which histopathological examination was performed. Three categories of pathological processes are shown following histological study namely neoplastic, cystic and reactive.

The neoplastic lesions were slightly more common and comprise

around 38.8% and benign were more frequent than malignant. The majority was of salivary gland origin. These results are comparable with other studies that mention palate being the most common intraoral site affected by tumours of salivary glands^(6,7).

Tumours of salivary glands are totally located at the posterior part of hard palate and involving soft palate.

The majority of cystic lesions were of odontogenic origin caused both palatal and labial swelling, where as the non odontogenic, namely nasopalatine cystic caused only palatal swelling. Thus, clinically such cystic swelling should be differentiated from odontogenic infection especially those related to upper lateral incisors⁽⁸⁾.

The reactive swellings in the palate were mostly of papillary hyperplasia which oftenly associated with maxillary denture, partial or complete in the elderly such lesions are commonly associated with secondary infection by candida. The lesion may probably arise in response to trauma or response to negative pressure placed on palatal tissues^(9,10).

It is concluded therefore, that the different types of pathologic processes may affect the palate result in clinical swelling and for definite diagnosis histopathological examination is recommended. Swelling in the posterior part of hard palate and soft palate, salivary gland tumors are more common. The cystic and reactive

swellings are more common in the anterior part of hard palate. It should also remember that carcinoma could occur in any area of the palate.

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