Journal Homepage: - www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/18247
DOI URL: http://dx.doi.org/10.21474/IJAR01/18247

RESEARCH ARTICLE

ORAL HAMARTOMA- A REVIEW

Dr. Akash Abhinav[1], Dr. Sanjeet Singh[2], Dr. Nishant Singh[3], Dr. Paramjit Singh[4], Dr. Kanika Sharma[5] and Dr. Neeraj Grover[6]

1. Post Graduate Student, Dept. Of Oral Pathology & Microbiology, DJ College Of Dental Sciences & Research, Modinagar.
2. Professor & HOD, Dept. Of Oral Pathology & Microbiology, DJ College Of Dental Sciences & Research, Modinagar.
3. Professor, Dept. Of Oral Pathology & Microbiology, DJ College Of Dental Sciences & Research, Modinagar.
4. Professor, Dept. Of Oral Pathology & Microbiology, DJ College Of Dental Sciences & Research, Modinagar.
5. Reader, Dept. Of Oral Pathology & Microbiology, DJ College Of Dental Sciences & Research, Modinagar.
6. Professor & HOD, Dept. Of Oral Pathology & Microbiology, Santosh Dental College & Hospital, Ghaziabad.

Manuscript Info

Manuscript History
Received: 30 November 2023
Final Accepted: 31 December 2023
Published: January 2024

Abstract

The majority of oral diseases present as growths and masses of varied cellular origin. Such masses may include simple hyperplasia, hamartoma, choristoma, teratoma, benign or malignant neoplasms. The distinguishing features of hamartomatous lesions are not certain, and often these non-neoplastic masses are indiscreetly denoted as neoplasms without weighing their pathology or biological behaviour. Essentially, understanding the dynamics of each of these disease processes forms an integral part of the appropriate treatment planning.

Introduction:-

The term hamartoma is derived from the Greek word “hamartia” referring to a defect or an error. It was originally coined by Albrecht in 1904 to denote developmental tumourlike malformations.[1]

It can be defined as a non-neoplastic, unifocal/multifocal, developmentalmalformation, comprising a mixture of cytologically normal mature cells and tissues which are indigenous to the anatomic location, showing disorganized architectural pattern with predominance of one of its components.The borders with the surrounding tissues are typically ill-defined, merging with surrounding tissues.The occurrence of multiple hamartomas in the same patient is often referred as hamartomatosis or pleiotropic hamartoma.[2]

Hamartoma

Tumour-like malformations characterized by the presence of particular histologic tissues in improper proportions or distribution, with a prominent excess of one type of tissue.[3]

Tumour-like malformation in which the tissues of a particular part of the body are arranged haphazardly, usually with an excess of one or more of its components.[1]

Characteristic Features

1. Usually congenital

Corresponding Author:- Dr. Akash Abhinav
Address:- Post Graduate Student, Dept. Of Oral Pathology & Microbiology, DJ College Of Dental Sciences & Research, Modinagar.

2. The tissues present are specific to the part from which it arises.
3. Growth is co-ordinated with that of surrounding tissues
4. Stops after adolescence
5. No tendency toward excessive growth.

Difference between Hamartoma and Benign tumours

The distinction between a hamartoma and a benign neoplasm may not always be easy to make, but consideration of the history, clinical findings, and histopathologic features can usually allow a diagnosis to be established[6].

Hamartoma	Benign neoplasm
Present at birth	Develop in later life
Growth in concert with patient	Autonomously
Mixture of mature tissue types	Usually composed of only one tissue element

Classification Of Hamartomas

❖ **Odontogenic Origin**

- Dens Evaginatus
- Dens Invaginatus
- Odontoma
- Periapical Cemental Dysplasia
- AdenomatoidOdontogenic Hamartoma
- Squamous Odontogenic Tumour
- Ameloblastic Fibro-Odontoma

❖ **Non – Odontogenic Origin**

Osseous lesions

- Tori
- Fibrous dysplasia

Pigmented lesions

- Melanocytic nevi

Vascular lesions

- Hemangioma
- Lymphangioma
- Glomustumour

Adipose tissue origin

- Angiomyolipomatosis

Syndromes associated

- Cowden syndrome
- Peutz-Jeghers Syndrome
- Maffucci's Syndrome

Others

- Epstein pearl
- Bohn's nodules
- Granular cell epulis
- Castleman's Disease

Hamartomas Of Non-Odontogenic Origin

Osseous Lesions

TORI: They are usually located at the longitudinal ridge of the half palatine, on the union of the palatine apophysis of the maxillae or on the internal side of the horizontal branch of the jaw.

Fibrous Dysplasia:

Fibrous dysplasia is a benign developmental disorder of the bone-forming mesenchyme in which normal bone is replaced by abnormal fibrous tissue that contains small, abnormally arranged bone trabeculae.

Pigmented Lesions

Melanocytic Nevi:

Oral melanotic nevi are benign tumors of melanocytes. Melanocytic nevi are uncommon lesions of the oral cavity.

Vascular Origin

Hemangioma:

Hemangioma is a benign proliferation of endothelial cells. It presents as a red macula, papule or nodule depending on the congestion degree and on how deep it is in the tissue.

Lymphangioma:

The lymphangiomas is a benign hamartomatous hyperplasia of lymphatic malformation characterized by excessive proliferation of the lymphatic vessels.

Glomus Tumour:

It usually appears as a solitary painful nodule, although some arising in childhood are multiple, sometimes familial and usually painless.

Adipose Tissue Origin
Angiomyolipomatous Hamartomas:
They are composed of matureadipose tissue, blood vessels showing variable sizes and muscle fibersin a fibrous connective tissue.

Peutz-Jeghers Syndrome
It is an autosomal dominantly inherited disorder characterized by intestinal hamartomatous polyps in association with mucocutaneous melanocytic macules.

Maffucci's Syndrome:
It is a nonhereditary syndrome characterized by early development of enchondromas and various soft tissue tumors, predominantly hemangioma.

Epstein's Pearls:
Bohn's nodules were originally described in 1866 as remnants of mucous gland tissue found on the buccal or lingual aspects of the dental ridges.

Granular Cell Epulis :
The congenital granular cell epulis (CE) is a benigntumor arising from the alveolar ridges of newborns andcomposed of nests of cells with granular cytoplasm set ina prominent vasculature.

Castleman Disease (CD):
It is a disease of lymph nodes and related tissues; rare disorder characterized by non-cancerous (benign) growths (tumors) that may develop in the lymph node tissue throughout the body (i.e., systemic disease).[5]

Nasal Chondromesenchymal Oral Hamartoma(NCMH)
Nasal chondromesenchymal hamartoma (NCMH) is a benign mass lesion of the nasal cavity that usually presents in young infants and children. The characteristic morphology includes a proliferation of mesenchymal and chondroid or cartilaginous elements.

Conclusion:-
Oral and maxillofacial Hamartomas comprised a group of lesions with different source of tissue origin. Clinically such lesions may show aggressive but its histopathological correlation reveals the true entity.Such Hamartomatous lesions of oral & maxillofacial region should be segregated from other benign & malignant neoplasm of this region. Oral hamartomas are unique presentations of the head and neck region. Nevertheless, the criteria to delineate hamartomas from other similar masses are ambiguous. To conclude, hamartomas should promptly be included in the differential diagnosis of the tumours of oral cavity, essentially the paediatric tumors, to avoid aggressive treatment and morbidity

References:-
1. Gnepp DR. Diagnostic Surgical Pathology of the Head and Neck. Philadelphia: W.B. Saunders Company; 2001.
2. Kaplan I, Allon I, Shlomi B, Raiser V, Allon DM. A comparative study of oral hamartoma and choristoma. J InterdisciplHistopathol 2015; 3: 129-134.
3. Greenberg MS, Glick M. Burkett's Oral Medicine: Diagnosis and Treatment. (10thedi.), BC Decker, Hamilton, Canada. 2003
4. Mupparapu M, Singer SR, Goodchild JH. Dens evaginatus and dens invaginatus in a maxillary lateral incisor: Report of a rare occurrence and review of literature. Aust Dent J 2004; 49(4): 201-203.
5. Shafer DM, Pasquale LMD. Hamartoneoplastic Syndromes. Atlas Oral Maxillofacial SurgClin N Am 2014; 22: 153-166
6. Neville BW, Damm DD, Allen CM, Bouquot JE. Oral and Maxillofacial Pathology. 2ndedi, WB Saunders, Philadelphia, London; 2004.