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Dentigerous Cyst or Unicystic Ameloblastoma, a Clinicians Conundrum.

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Abstract: *Ameloblastoma Is A Neoplasm Of Odontogenic Epithelium, Principally Of Enamel Organ-Type Tissue That Has Not Undergone Differentiation To The Point Of Hard Tissue Formation It Accounts For About 1% Of All Oral Tumors And About 9-11% Of Odontogenic Tumors. It Is Generally A Slow-Growing But Locally Invasive Tumor. Its Peak Incidence Is In The Third To Fourth Decades Of Life And The Male: Female Ratio Is 1:1. Ameloblastoma Accounted For 60.3% Of All Odontogenic Tumors In Indian Population, With A Mean Age Of Presentation Of 30.2 Years. A Slight Male Predilection And Major Occurrence In The Mandibular Molar-Ramus Area Were Elicited. They Are Classified As Unicystic, Multicystic Or Solid, 86% Of Cases Are Multicystic Ameloblastomas. Ameloblastoma In The Mandible Can Progress To Great Size And Cause Facial Asymmetry, Displacement Of Teeth, Malocclusion, And Pathologic Fractures.*

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I. Introduction

Ameloblastoma, Is Derived From The English Word "Amel" Which Means Enamel And The Greek Word "Blastos" Which Means The Germ.[1] It Arises From The Epithelium Of The Dental Lamina, And It Is Characterized By Its Local Aggressive Behavior And A High Recurrence Rate. Ameloblastoma Was First Described In 1827 By Cusack.[2] In 1885, Malassez Introduced The Name "Adamantinoma," Which Is Presently Used To Illustrate A Rare Form Of Bone Cancer Described By Fisher In 1913.[3] It Was First Detailed And Described By Falkson In 1879. The Term Ameloblastoma Was Coined By Ivey And Churchill In 1930,[4,5] A Currently Accepted Term. It Is Considered As A True Neoplasm As The Name Implies It Mimics The Cells Of The Enamel-Forming Organ. It Was Described By Robinson In 1937, As A Benign Tumor That Is "Usually Unicentric, Nonfunctional, Intermittent In Growth, Anatomically Benign And Clinically Persistent." The World Health Organization (WHO) (1991) Defined Ameloblastoma As A Benign But Locally Aggressive Tumor With A High Tendency To Recur, Consisting Of Proliferating Odontogenic Epithelium Lying In A Fibrous Stroma.[6]

Ameloblastoma Is Classified, According To WHO And The International Agency For Research On Cancer, 2003, As A Benign Tumor With Odontogenic Epithelium, Mature Fibrous Stroma And Without Odontogenic Ectomesenchyme. Ameloblastoma Is Further Classified Into:

- Solid/Multicystic
- Extraosseous/Peripheral
- Desmoplastic Ameloblastoma
- Unicystic.

II. Case Report

A 55-Year-Old Patient Reported With A Swelling (Figure 1) On The Left Side Of The Face Since 2 Years And Pain While Chewing Food Since 3 Months. The Swelling Was Insidious In Onset And Gradually Increased To The Present Size. There Was No History Of Trauma Or Toothache Or Decrease In The Size Of The Swelling Or Any Discharge From The Swelling. The Patient Was Experiencing Pain While Chewing Hard Food. The Patient Also Had Altered Sensation Over The Left Cheek Region. She Was A Known Pan Chewer. On Examination, There Was A Solitary Ill-Defined Diffuse Swelling Over The Left Middle And Lower Third Of The Face (Figure 1) Measuring About 5×8 Cm Extending Superioinferiorly From The Left Pretragal Region To The Lower Border Of The Mandible And Mediolaterally 1 Cm From The Left Corner Of The Mouth To The Left Lateral Border Of The Mandible. The Surface Was Smooth And The Skin Overlying The Swelling Was Stretched And Was Of Normal Colour With No Secondary Changes To Be Found. It Was Non-Tender And Hard To The Palpating Fingers.

An Intraoral Examination Revealed An Ill-Defined Solitary Swelling (Figure 2) In The Left Lower Posterior Buccal Vestibule Extending Anterioposteriorly From 34 To The Retromolar Region And Mediolaterally 1.5 Cm From The Buccal Surface Of The Molars To 1 Cm Lingual To Molars With Smooth Surface And Mucosa Overlying Was Stretched And Similar To Adjacent Mucosal Colour With No Secondary Changes To Be Found. It Was Non-Tender And Hard In Consistency With Buccal And Lingual Cortical Plate Expansion. Radiographically Well Defined Radiolucency Was Noticed With Impacted 38 Measuring Superioinferiorly 3 Cms And Anteroposteriorly 4 Cms.(Figure 3) Considering The Clinical Findings, A Tentative Diagnosis Of Benign Tumour Of The Left Side Of Lower Jaw Was Made. Ameloblastoma Was Thought As First In The List Of Differential Diagnosis As It Is The Most Commonly Occurring Tumour In The Mandibular Molar Ramus Region In This Age Group. Second. Dentigerous Cyst Was Considered, Which Has Similar Site Of Occurrence. Fine Needle Aspiration Cytology Was Made And The Specimen Was Subjected To Histopathological Examination. Reports States Inflammatory Cystic Fluid. Later Patient Was Planned For Cyst Enucleation And Peripheral Ostectomy Under Local Anaesthesia And Was Executed As Planned(Figure 4). After The Cyst Enucleation Specimen Was Subjected To Histopathology, Report States Unicystic Ameloblastoma (Figure 5). 1 Month Post Operative Follow Up Was Done With The Radiograph And Patent Is On Continous Follow Up(Figure 6).

III. Discussion

Ameloblastoma Is A Benign Epithelial Odontogenic Tumour Often Aggressive And Destructive With The Capacity To Erode Bone And Invade Adjacent Structures. Ameloblastoma Of The Lower Jaw Can Progress To Variable Sizes (1–16 Cm) And Cause Facial Asymmetry, Displacement Of Teeth, Malocclusion And Pathological Fractures. In The Present Case Also The Patient's Clinical Examination Revealed A Large Hard Swelling In The Ascending Ramus And Molar Region Of The Mandible Which Had Caused The Facial Asymmetry, Loose Teeth And Expansion Of The Buccal As Well As The Lingual Cortical Plate.

The Ameloblastoma Is Usually Of Late Diagnosis Because Of Its Poor Symptoms And Low Prevalence. Its Treatment Preferably Includes The Resection With Safety Margins And Immediate Reconstruction Whenever Possible. Routine Histological Classification Of The Ameloblastoma Is Mandatory For Its Morphological Characterization And, Thus, A Better Treatment Definition. The Main Success Factor Associated With The Treatment Is The Early Diagnosis And To Correlate The Histopathologic Findings With Clinical And Radiographic Features To Achieve At A Correct Definitive Diagnosis As All Such Lesions Might Have Prognostically Different Biologic Behaviors And The Final Diagnosis May Alter The Therapeutic Decision Significantly.

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