

LINK



Post graduate Club's Journal – 2017-18



Government Dental College & Hospital, Nagpur.



Expect the unexpected

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2017-2018



CASE



A 25yrs old female came with the chief complaint of mass over left lateral border of tongue since 7 years.

HOPI: Patient was apparently alright 7 years back when she noticed small single painless growth over left lateral border of tongue. Growth was gradually increasing in size and soft to firm in consistency for which she came to GDCH, Nagpur for treatment.

Past medical history:
Not contributory.

Past dental history:
Not contributory.

Family history:
Not contributory.

Habit History:
No deleterious habits

Examination:

1. General examination

Patient is conscious, co-operative & well oriented to time, place & person.

Built & gait: normal

Vital signs: normal

2. Extraoral examination;

Facial Symmetry- Bilaterally symmetrical

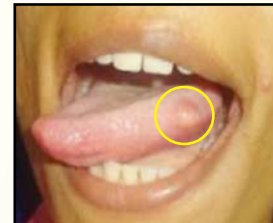
Lymph nodes: Non palpable

TMJ Movement: within normal limits

Lips: competent

3. Intra oral examination :

Size:



Palpation: On palpation, the inspeactory findings are confirmed.

Firm on consistency, non-tender on palpation

Provisional Diagnosis: Traumatic fibroma

Investigations :

A. **Complete Haemogram :**
Within Normal Limits

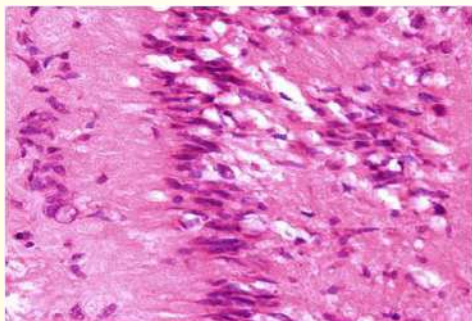
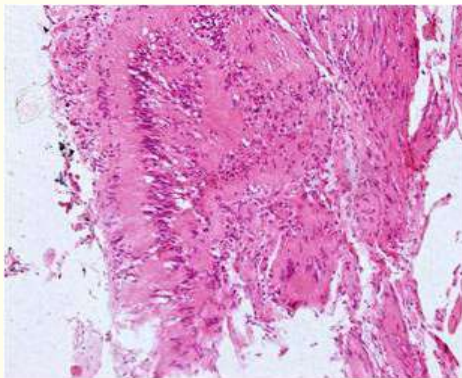
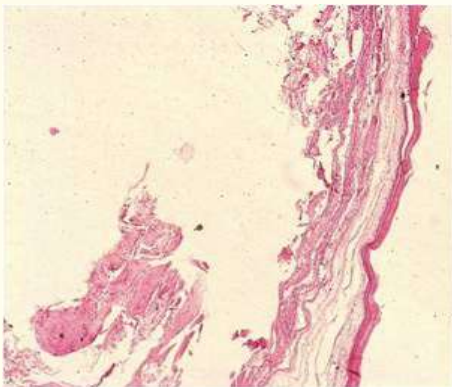
B. **Biopsy**



Histopathology Report

H & E stained section shows a single bit of tissue covered by surface epithelium which is parakeratinized and mildly proliferative.

Underlying connective tissue shows well encapsulated lesional tissue which shows Antoni type A cells & Antoni B cells. Antoni A type is highly cellular and composed of streaming fascicles of Schwann cells with palisaded arrangement of nuclei, around central acellular, eosinophilic areas known as Verocay bodies. Antoni B tissue is seen which is less cellular and less organized.



Histopathological Diagnosis : Neurofibroma



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CASE



A 47 Yrs/Male came with the complaint of painless small growth over lower lip since 1.5 month.

HOPI

Patient was apparently alright 1.5 month back when he noticed painless small growth over lower lip. He applied balm over the lesion and after 10 days he visited to pvt. Physician where small part of lesion was excised. He gives h/o bleeding after excision and also on mild trauma. After a week he visited to ART centre (K/C/O HIV) where he was referred to GDCH Nagpur for further treatment.

Past medical history: K/C/O HIV and is currently on 2nd line ART

Past dental history: Not contributory.

Family history: Not contributory.

Habit History: Not contributory.

Teeth cleaning habit: with manjan since 1.5 year.

Examination:

1. General examination

Patient is conscious, co-operative & well oriented to time, place & person.

Built & gait: normal

Vital signs: normal

2. Extraoral examination;



Facial Symmetry- Well defined, solitary, wart like, roughly cylindrical exophytic growth present over lower left lip near midline.

Size- 2.0*0.5 cm approx.

Surface-rough.

Non-tender.

Firm in consistency

Lymph nodes: Not palpable.

TMJ Movement: within normal limits

Lips: competent

Provisional Diagnosis: Viral wart

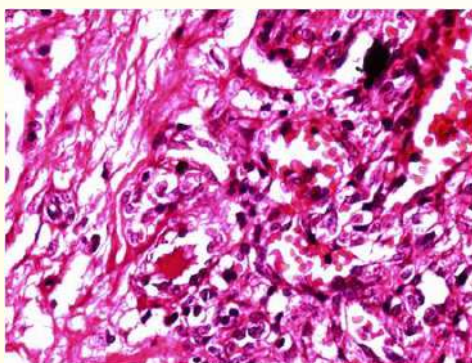
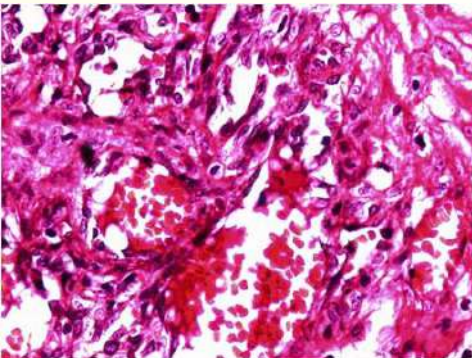
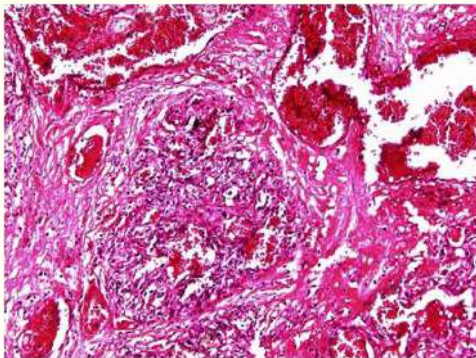
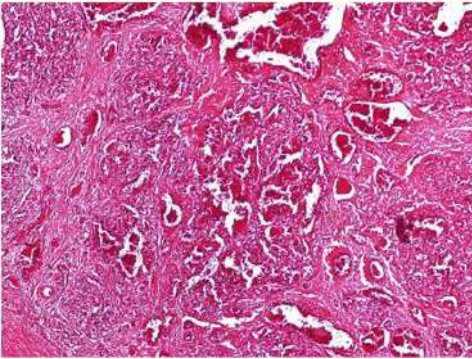
Investigations:

A. Complete Haemogram : Within Normal Limits

B. Biopsy: excisional biopsy



Histopathology



numerous septae, dividing the lesional tissue into lobules.

At higher magnification, the lesional tissue shows numerous, engorged, dilated and endothelium lined vascular spaces in a loose connective tissue stroma. Lobular arrangement of vascular spaces is also evident. A few chronic inflammatory cells are also seen scattered in the connective tissue stroma.

Hence based on these findings of lobular arrangement of engorged vascular spaces and minimal chronic inflammatory cell infiltrate we gave final diagnosis of lobular capillary hemangioma.

Final diagnosis: Lobular capillary hemangioma

Histopathologic examination at low magnification shows numerous, engorged, dilated vascular spaces in loose connective tissue stroma. The connective tissue is also forming



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CASE



A 35 year old female came with a chief complaint of ulcer in right buccal mucosa since 5 months.

HOPI: Patient was apparently alright 5 months back when she developed an ulcer over right buccal mucosa region which went on increasing in size to attain the present day size. Ulcer is associated with pain & h/o spontaneous bleeding. Patient also had complaint of reduced mouth opening.

Past medical history: Not contributory.

Past dental history: Not contributory.

Family history: Not contributory.

Habit History: History of Kharra (Areca quid + tobacco) chewing since 2-3 yrs.

Examination:

1. General examination

Patient is conscious, co-operative & well oriented to time, place & person.

Built & gait: normal

Vital signs: normal

2. Extraoral examination;

Facial Symmetry- Bilaterally symmetrical

Lymph nodes: Right SMLN palpable, enlarged approx 1.5x1.5 cm, fixed, hard & tender.

TMJ Movement: within normal limits

Lips: competent

3. Intra oral examination :

Ulcerative lesion present over right buccal mucosa extending from commissure to retromolar region & superoinferiorly in buccal vestibule



Size: 3x3 cm approx

Edges: Undermining edges

Palpation: On palpation, the inspeactory findings are confirmed.

Firm on consistency, non-tender on palpation

Other Findings- IIO= 20mm with 11 & 41 region

Blanching on soft palate & bilateral

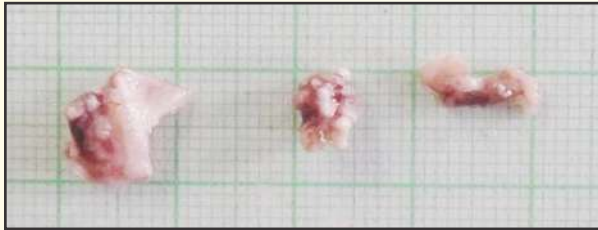
buccal mucosa .

VIII) Provisional Diagnosis: OSMF & malignancy involving right buccal mucosa with secondaries in neck nodes

Investigations :

A. Complete Haemogram : Within Normal Limits

B. Biopsy



Histopathology :

H&E stained section shows multiple bits of tissue partly covered by parakeratinized stratified squamous surface epithelium.

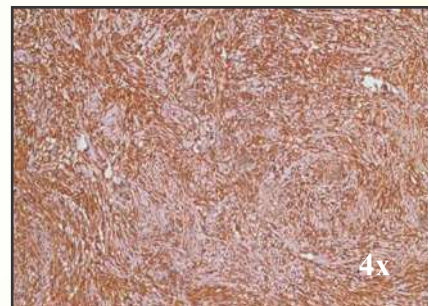
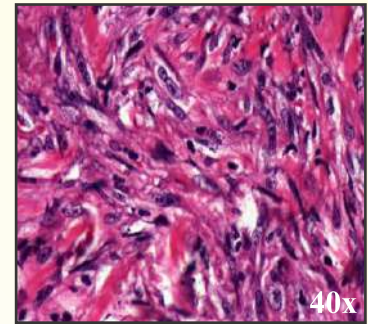
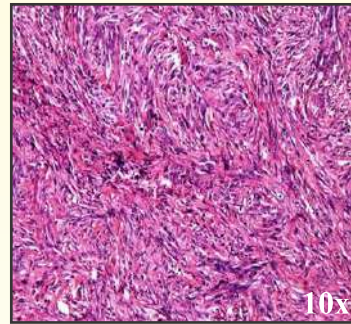
Underlying lesional tissue is separated from the epithelium by a band of normal connective tissue.

Lesional tissue is compactly arranged & highly cellular composed of spindle shaped cells arranged in short intersecting fascicles.

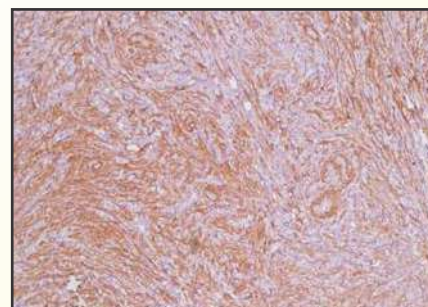
Tumor cells are with well delineated cell membrane, hyperchromatic nuclei, at places mild cellular & nuclear pleomorphism & mitotic figures are also seen.

Rest of the connective tissue consists of collagen fibre bundles, small & large endothelium lined blood vessels, moderate chronic inflammatory cell infiltrate in the form of lymphocytes & plasma cells.

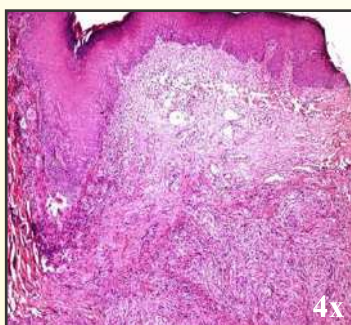
At the periphery L.S & T.S of nerve tissue & minor salivary gland acini(mucous) & ducts are also seen.



Vimentin positivity



SMA positivity



Histopathological Diagnosis-Spindle cell connective tissue malignancy ?????

IHC Investigations:



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Case :



A 28 Yrs/ Female came with the complaint of growth over the right lateral border of tongue since 1 month.

HOPI

Patient was apparently alright 1 month back. Then she noticed a small growth on right lateral border of tongue. The growth was initially small and painless. It gradually increased over a period of 1 month to attain present day size. No h/o bleeding or any other discharge.

Past medical history: Not contributory.

Past dental history: Not contributory.

Family history: Not contributory.

Habit History: Not contributory.

Examination:

1. General examination

Patient is conscious, co-operative & well oriented to time, place & person.

Built & gait: normal

Vital signs: normal

2. Extraoral examination;

Facial Symmetry- Apparently

symmetrical

Lymph nodes: Not palpable.

TMJ Movement: within normal limits

Lips: competent

3. Intra oral examination: Right lateral border of tongue shows a small sessile growth at the junction of ant 2/3rd & post 1/3rd of tongue.



Size: 1.5 x 1 cm approx

Colour: pinkish same as tongue

Overlying surface: lobulated.

Consistency: soft to firm, with small cystic area on anterior aspect.

Tenderness: Slightly tender on palpation

Provisional Diagnosis: Fibroma

Differential diagnosis:
Neurofibroma

Leiomyoma

Benign salivary gland tumor

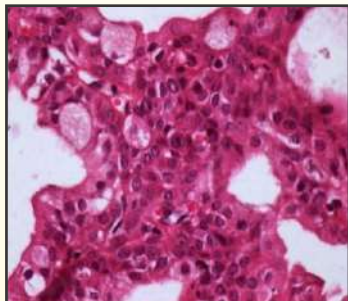
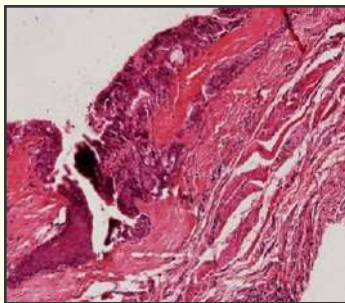
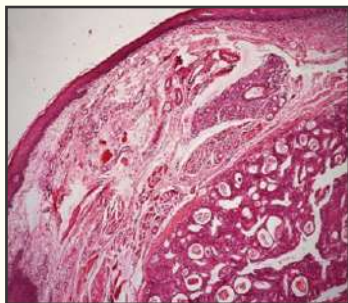
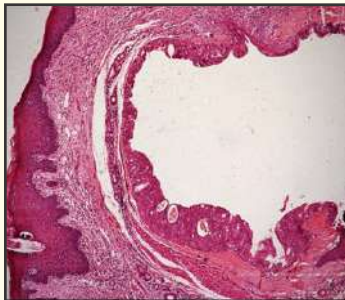
Investigations :

A. Complete Haemogram :
Within Normal Limits

C. Biopsy: excisional biopsy



Histopathology



Histopathologic examination at scanner view shows normal appearing epithelium which appear to be stretched and atrophic with loss of rete ridges. It surrounds the normal connective

tissue stroma showing the presence of salivary gland acini, blood vessels and muscle tissue separating lesional tissue which was partially capsulated. Another section at scanner view shows lesional tissue with large cystic space lined by neoplastic glandular epithelial cells. One more section at scanner view shows multiple large and small cystic spaces. Few of them filled with mucin like eosinophilic material. At lower magnification we can see multiple cystic spaces surrounded by clusters of eosinophilic epidermoid cells with central nucleus and mucous cells which are larger than epidermoid cells. Another section at low magnification shows lesional glandular epithelial cells invading into adjacent connective tissue stroma.

Deeper sections of the tissue shows, the presence of normal salivary glands. In this section we can see mucous acini and ducts with normal ct septa, which are not showing any invasion by the neoplastic cells. At higher magnification, the lesional tissue shows clusters of eosinophilic epidermoid cells showing features like vesicular nuclei, altered N:C ratio and hyperchromatism at few places. It also shows the presence of large foamy mucous cells with eccentrically placed nucleus. The epidermoid cells lining cystic space and invading into the surrounding collagenous matrix show vasculature nuclei, hyperchromatism and altered N:C ratio.

Multiple cystic space, large no of mucous cells and sheets of epidermoid cells showing cellular atypia, a final diagnosis of low grade mec was given. However when the slide was screened further, few unexpected features were observed. Another bit of the same tissue at higher magnification shows clusters of highly malignant epidermoid cells showing complete loss of intercellular bridges, cellular and nuclear pleomorphism, spindling of cells with elongated nuclei and hyperchromatism. In a section few intermediate cells are also evident. Hence based on these extra findings of malignant epidermoid cells, presence of intermediate cells and invasion into the surrounding ct stroma, we gave final diagnosis of intermediate grade mec.

Final diagnosis: intermediate grade Mucoepidermoid Carcinoma



Expect the unexpected

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2017-2018

Case :



10yrs/Male patient complaints of swelling over lower right and left posterior region of jaw since 1 year.

History of present complaint: patient was apparently alright 1 year back. When he noticed swelling over left side of jaw. Swelling was painless & gradually increased to present size. After 7-8 months patient visited local doctor where he was examined and medications were advised. After taking medicines, swelling decreased in size. After few months patient noticed swelling over right posterior region of jaw, which was painless gradually increased to present size.

Past medical history : Non contributory

Past dental history : Non contributory

Personal history : Non contributory

Family history : Non contributory

Extraoral Examination:

Facial Symmetry : Diffuse hard swelling on left side of face, AP-

extending 2 cm below the corner of mouth till left body mandible wrt 36 region.

SI- extending from mouth to lower border of mandible, size approx. 3x3 cm

Diffuse swelling over right angle & ramus of mandible, size approx. 2x2 cm

Non-tender on palpation surface

Firm in consistency

Lymph nodes : multiple SMLN palpable, B/L enlarged, non tender, freely mobile.



Intraoral Examination: no clinical finding seen over right side of jaw. Over left side of jaw, slight buccal vestibule obliteration is appreciated.



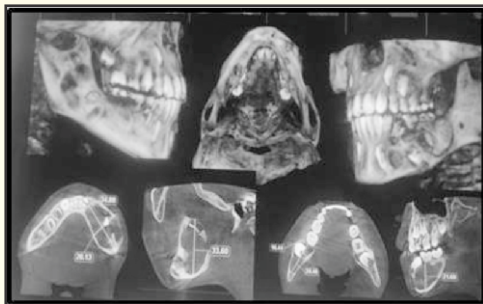
OPG : well defined corticated radiolucency seen B/L over right angle till ramus region & bowing of inferior border of mandible over left side wrt 32-36.

Displacement of 35 towards inferior border of mandible & tooth bud of 48 towards sigmoid notch.





CBCT : solitary, well defined corticated radiolucency seen B/L in the mandible.



Right side: A well defined corticated radiolucency seen distal to 46, extending to involve the entire ramus. Corticated margins of the radiolucency seem to be attached to the CEJ of developing 47 and the crown of the developing 47 lies within the radiolucency. Mild expansion and thinning of the right ramus.

Left side: A well defined corticated radiolucency extends from distal aspect of developing 33 upto the mesial aspect of 36 distally. The corticated margin of radiolucency appears to be attached to the CEJ of developing 35 on the the buccal aspect. Crown of developing 35 lies within the radiolucency in close approximation to the inferior border. Expansion of buccal cortical plate with thinning and perforation at multiple sites. Expansion of the lingual cortical plate with mild thinning.

Provisional diagnosis: Dentigerous cyst

Histopathology :

Fig 1- 10X magnification showing connective tissue with multiple groups, nests & cords of quiescent odontogenic epithelium not

resembling any particular pattern or architecture (Right).

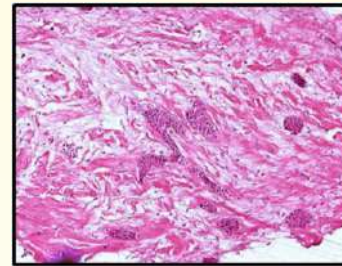


Fig 2- 40X magnification showing odontogenic epithelial nests & cords appears to be hyalinised (Right).

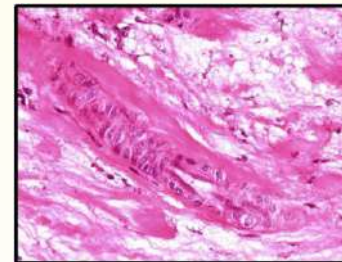


Fig 3- 4X magnification showing cystic lumen lined by parakeratinized odontogenic epithelium surrounded by well organized connective tissue wall (Left).

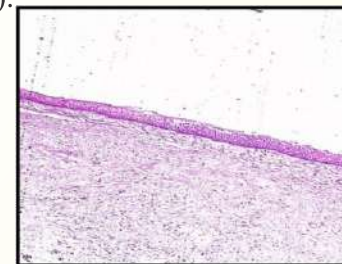


Fig 4- 10X magnification showing 8-10 layers thick odontogenic epithelial lining consisting of tall columnar basal cells with hyperchromatic nuclei (left)

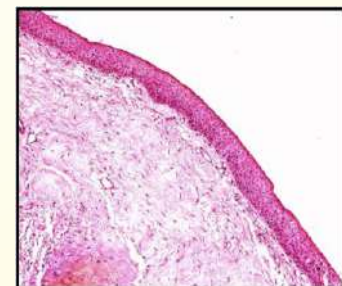
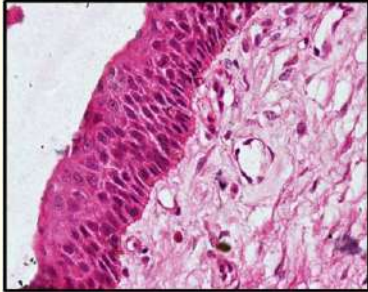


Fig 5- 40X magnification showing basal cells arranged in palisading pattern giving it a picket-fence appearance (right).



HISTOPATHOLOGIC DIAGNOSIS –
Odontogenic Lesion (Right side of jaw)
Odontogenic keratocyst (Left side of jaw)



Expect the unexpected

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2017-2018



Case :



20 yrs/ Male patients complaints of swelling in upper left posterior region of jaw since 2 months.

History of present complaint:

Patient was apparently alright 2 months back, when he noticed small swelling on the left side of face that as not causing any symptoms but swelling was progressively increasing in size.

Past medical history : Non contributory

Past dental history : Non contributory

Family history : Non contributory

Extraoral Examination:

Facial Symmetry : Diffuse swelling present on in left maxillary region.

Size - 3x2 cm

Consistency: Firm

Fixed to the underlying structure

Non-tender on palpation surface.

Lymph nodes : Not palpable.

Intraoral Examination: Well defined swelling present in upper left posterior region of from 24 till retromolar region, reddish pink in color, smooth surfaced, firm in consistency and non tender on palpation.



OPG : showing change in trabecular pattern



Provisional diagnosis: Fibrous dysplasia

Histopathology :

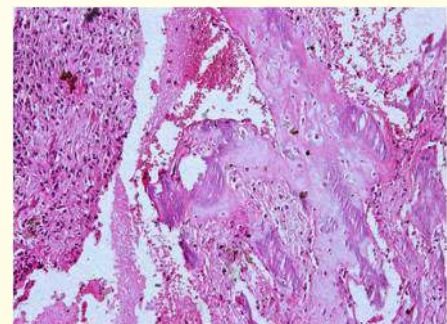


Fig 1- 10X magnification showing pale eosinophilic tumor osteoid with entrapped large osteocytes present within lacunae. At one area a sheet of malignant mesenchymal cells can be appreciated.

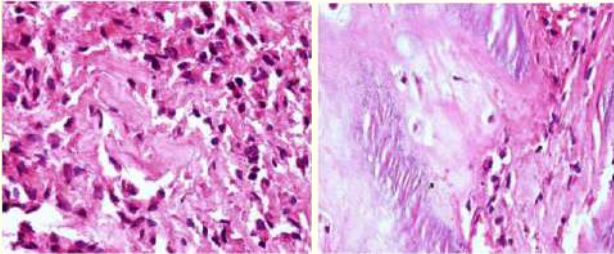
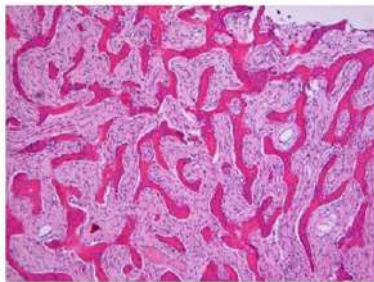
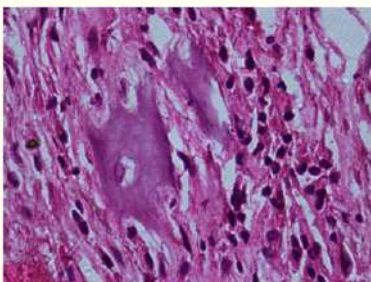


Fig 2,3 - 40X magnification showing pale eosinophilic tumor osteoid surrounded by malignant osteoblasts with angulated hyperchromatic nuclei.

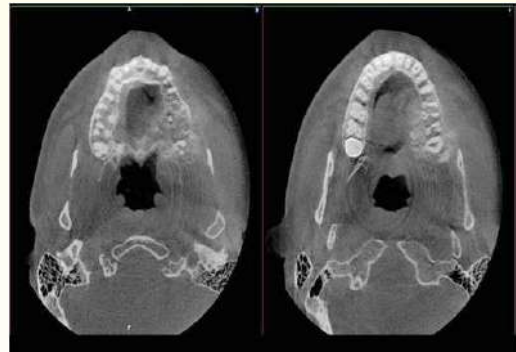
What was expected....



What it came out...



the Lt. Maxilla. The lesion has a ill-defined, irregular periphery extending from the 24 region posteriorly upto the pterygoid plates and superiorly into the Lt. Maxillary sinus. Impression - **Malignancy involving the Lt. Maxilla**



FINAL DIAGNOSIS - OSTEOSARCOMA

**FIBROUS DYSPLASIA OSTEOSARCOMA
HISTOPATHOLOGIC DIAGNOSIS-
OSTEOSARCOMA**

CBCT : Ill-defined, mixed radiolucent radiopaque lesion present in the posterior part of



Expect the unexpected

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2017-2018



CASE 1



Chief Complaint -51yrs/M Patient,
C/o growth in mandibular left
posterior gingival region since 1
month

HOPI- Patient was apparently alright
1 month ago, until he noticed a small
gingival swelling in 33 to 36 region.
The swelling was smaller in size
initially and eventually went on
increasing to the present size. Pt. also
gives H/O Pus Discharge from the
same region.

Past history- Past medical, dental
and family history were not
contributory.

Personal habit history- H/O-
Kharra and tobacco chewing since
10-15 yrs.

Extraoral Examination-

1. Symmetry- NO gross asymmetry
was noticed.
2. LIPS- Competent
3. TMJ-NAD
4. Lymphnodes- A Single LSMLN
was palpable and enlarged.

Intra-oral examination

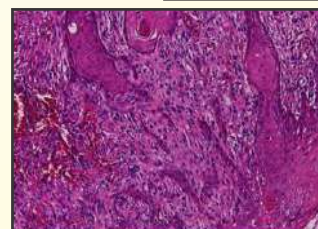
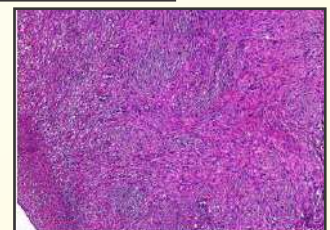
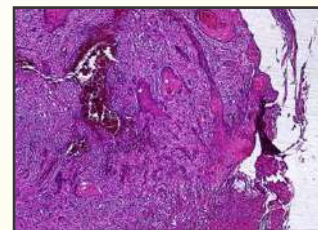
Intra-orally, a well defined gingival
growth is present w.r.t. 33 to 36
region.



Excisional Biopsy



Provisional Diagnosis - Pyogenic Granuloma



Histopathological slides shows, biphasic nature of tumor with hypercellular stroma. Both the component, i.e. squamous and spindle cell component can be appreciated. They seem to be abut against each other. Short fascicles of spindle shapes cells are arranged in streaming pattern. Few islands of malignant epithelial cells seen along with keratin pearl formation.

Final Diagnosis-
Sarcomatoid Carcinoma

- A rare variant of oscc.
- 5 yr disease free survival rate is approx. 30% for oral lesions, with most deaths occurring within 1 year of diagnosis.
- The prognosis of oral SC is worse than that of SC occurring in other anatomic sites but it is similar to high grade conventional oscc.

CASE 2



Chief Complaint- A 21 yrs female patient came with chief complaint of pain and swelling over left side of jaw since 20 days.

HOPI- Pt. was apparently alright 20 days ago, until she noticed a small proliferative growth over left buccal mucosa which was smaller in size initially and went on increasing to the present size.

Past History- Pt. gives history of removal of a small boil from the toe of her left foot 1 year ago.

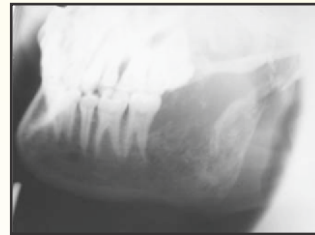
Extraoral examination- A diffuse swelling was present over left side of face involving entire mandibular body region.

Intraoral Examination- A fleshy growth was present over left buccal mucosa involving entire

buccal mucosa, extending till upper and lower buccal vestibule.

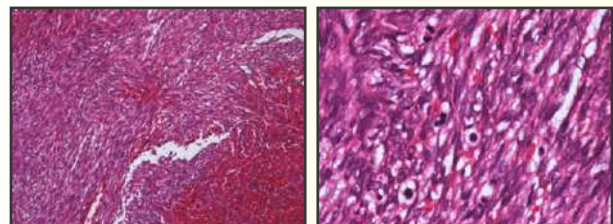


Radiographic examination- Lateral oblique radiograph, shows ill defined radiolucency over left mandibular body region.



Provisional Diagnosis- Ca. of left alveolobuccal complex.

Histopathological examination-

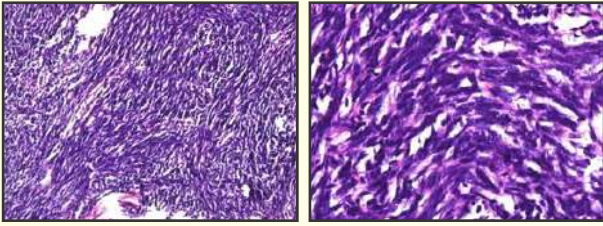


H & E stained section shows hypercellular stroma with area of haemorrhage. Short fascicles of spindle shaped cells seen. High power shows, hyperchromatic nuclei with few mitotic figures.

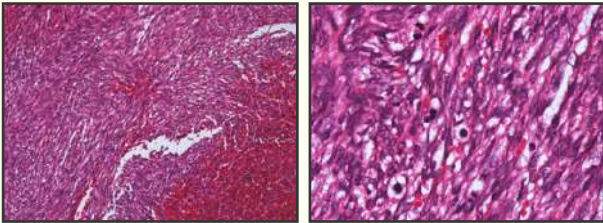
Spindle Cell Malignancy??

To give a final diagnosis, was a challenging task. So the patient was recalled and that time we came to know that she was a **diagnosed case of synovial sarcoma of left foot.**





PRIMARY



METS

Final Diagnosis- Metastasis of synovial sarcoma of left foot.



Expect the unexpected

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Microbiology

Government Dental
College & Hospital,
Nagpur

2017-2018



CASE 1



50 Yrs./M
C/o swelling over left side of face
since 2 months

HOPI

- Patient was apparently alright 2 months back when he noticed swelling over left side of face.
- Swelling was initially small in size, gradually increased to present size for which pt. came to GDCH Nagpur where extraction of 26 was done and medication prescribed.
- Pt. took medication but swelling didn't subside.
- Pt. again reported to oral surgery dept. where aspiration was done.
- There is no h/o bleeding or pus discharge.

Past medical history: Not contributory.

Past dental history: Not contributory.

Family history: Not contributory.

Teeth cleaning habit: Tobacco chewing since 30 yrs. 4-5times/day.

Examination:

1. General examination

Patient is conscious, co-operative &

well oriented to time, place & person.

Built & gait: normal

Vital signs: normal

2. Extraoral examination



Facial Symmetry-

A well-defined swelling is present over left side of face Extending A-P from bridge of nose till 0.5 cm posterior outer canthus of eye and S-I from infraorbital margin to left angle of mouth.

- Size: 5*4 cm approx.
- Overlying temperature was raised.
- Swelling was slightly tender on palpation,
- Firm in consistency.

Lymph nodes: Left SMLN palpable of approx. 1*1 cm, mobile, free from overlying skin, non-tender, firm in consistency.

TMJ Movement : within normal limits.

Lips: competent.

Intra-oral Examination

- Diffuse intrabony swelling w.r.t. 21-28 region.



- Extent- Palatally till midline and buccally obliterating buccal vestibule.
- Slightly Irregular surface.
- Soft to firm but not bony hard.
- Slightly tender on palpation.
- Mobility- Grade III -24 25 27
- Grade I-23 28.



Radiographic Examination

Diffuse radiopacity w.r.t. left maxillary sinus region with extrusion of 25.

Investigations:

A. Complete Haemogram :

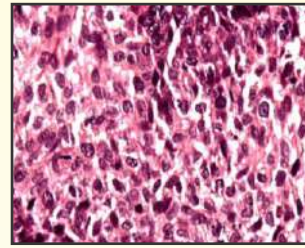
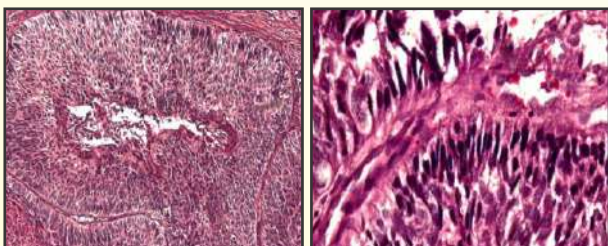
Within Normal Limits

B. Biopsy: Incisional biopsy



Provisional Diagnosis: Fibro-osseous lesion.

Histopathology:



Histopathological examination

- At scanner view H/E stained section shows nests and follicles of basaloid cells separated by thin fibrous septa.
- Low power view shows tall columnar cells lining these follicles arranged in palisaded pattern and cell located in the centre are oval to polygonal in shape.
- High power view shows lining tall columnar cells exhibiting nuclear pleomorphism & nuclear hyperchromatism and cell located in the centre show cellular nuclear pleomorphism, nuclear hyperchromatism and abnormal mitotic figures.

Final diagnosis: Basaloid squamous cell carcinoma.

CASE 2



50 Yrs. / F

C/o swelling over lower left posterior region of jaw since 6-8 weeks.

History of present illness:

- Patient was apparently alright 6 months back when she noticed mobility in lower left posterior teeth for which patient visited local dentist where extraction of 36, 37 was done.
- Within 2 days of extraction, patient noticed small swelling over the same extraction site which gradually increased to present size.

- Now patient complains of pain in the same region of jaw. For which she consulted GDCH Nagpur.

Past medical history:

- H/O Herpes zoster 5-6 yrs. back 2011 over left thigh region for which patient had undergone full treatment.
- H/o FNAC twice in GMCH Nagpur & diagnosis of **acute and chronic inflammatory infiltrate (exudate) and granulation tissue with blood.**

Personal history:

- Teeth cleaning with snuff & finger since childhood.
- Habit of tobacco & Pan chewing 3-4 times/day for 35-40 yrs.

Examination:

1. General examination

Patient is conscious, co-operative & well oriented to time, place & person.

Built & gait : normal

Vital signs : normal

Extraoral examination



- Facial symmetry: B/L symmetrical
- Lip seal: competent
- TMJ: NAD
- Lymph nodes: left single SMLN, 1x1cm, mobile, non- tender, firm in consistency is palpable.

Intraoral examination:

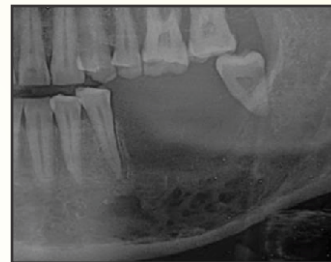
- Fleshy growth
- Site: left mandibular posterior alveolar ridge
- Size: approx.. 4x3cm
- Surface: smooth, occluding surface ulcerated.



- Consistency: firm
- Non tender on palpation
- Grade III mobile w.r.t 35, 38
- Grade II mobile w.r.t 34.

Radiographic examination:

Multiple, well defined, punched out radiolucencies seen in the body of mandible w.r.t 35- 38 region.

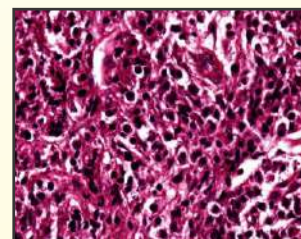
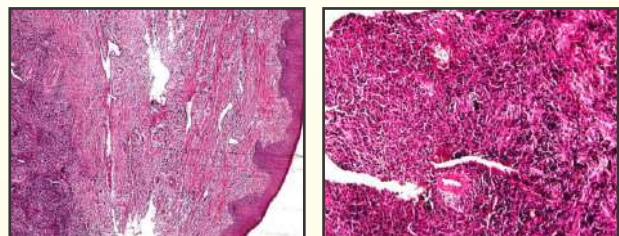


Biopsy: Incisional biopsy



Provisional diagnosis: Malignancy involving bone.

Histopathology



Histopathological examination,

- At scanner view, H/E stained section shows parakeratotic stratified squamous surface epithelium which appears to be normal and lesional tissue separated from epithelium by a band of normal connective tissue.
- Low power view shows lesional tissue infiltrated by diffuse monotonous appearing lymphoid cells
- High power view shows many cells with hyperchromatic eccentrically placed nuclei with thin rim of cytoplasm s/o plasma cell differentiation.

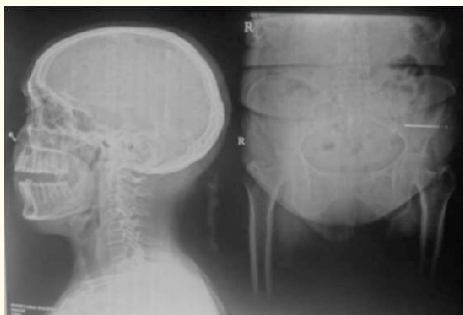
Final diagnosis: B-cell lymphoma / Multiple myeloma?

Subject to further investigations for confirmation of diagnosis.

2nd Visit....after 1 month,

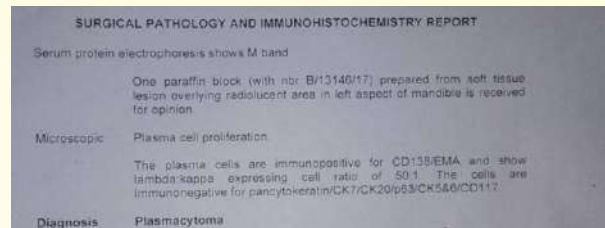


- Skull and pelvis radiographs exhibiting multiple punched out lesions.



- Serum electrophoresis was positive for M-band.
- Bone marrow aspiration was exhibiting immature plasma cells with Plasmacytosis (74%)

Immunohistochemistry report



Final diagnosis: Multiple myeloma



Expecting the unexpected

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CASE 1



13yrs/female patient complaints of swelling over lower left posterior region of jaw since 8 months

History of present complaint: patient was apparently alright 8 months back. when she noticed swelling over left side of jaw. Swelling was painless & gradually increased to present size.

Past medical history : Non contributory

Past dental history : Non contributory

Personal history : Pt gives h/o kharra chewing 3-4 times /day since 4-5 years

Family history : Non contributory

Extraoral Examination:

- **Facial Symmetry :** asymmetric with a diffuse bony hard swelling seen over Lt body region of mandible

- **Size:** 8x7 cm
- **Extending:** from Lt corner of mouth to preauricular region
- **PALPATION:**
- **overlying skin is normal**
- **with localized temp is raised**
- **mild tenderness over swelling**
- **Lips: competent**
- **TMJ: NAD**
- **Lymph nodes: Not palpable**
- **No h/o blood and pus discharge**



HARD TISSUE EXAMINATION

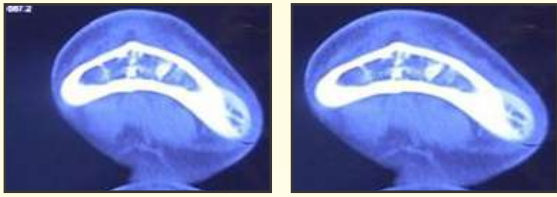
- **Reduced Mouth Opening**
- **Diffuse Bony hard** swelling present in the Lt alveolus region extending from 33 to 37 region
- **Expansion of buccal cortical plate** wrt 33 to 37 region
- **No lingual cortical plate expansion**

SOFT TISSUE EXAMINATION

- **Blanching present B/L over buccal Mucosa, Soft palate upper and lower labial mucosa**
- **Vertical fibrous band palpable over B/L posterior buccal mucosa**

CT scan report- Mixed radio-opaque and radiolucent lesion was seen over the left lower body region of mandible





Provisional diagnosis: Fibro-oseous lesion/ malignant bony lesion

Histopathology :

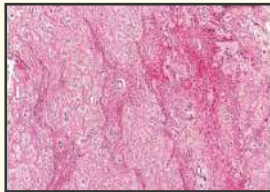


Fig 1- 4X magnification highly cellular connective tissue stroma interspersed with interconnected bony trabeculae in the various stage of ossification.

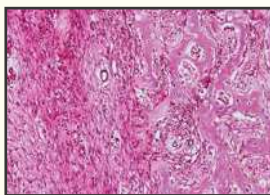


Fig 2- 10X magnification showing bony trabeculae with large osteocytes and numerous endothelial lined blood vessels.

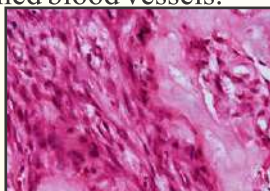


Fig 3- 40X magnification showing spindle shaped fibroblasts and osteoid matrix

Case-2

75/female patient complains of swelling in the left back region of jaw since 1 year

Past medical history : Non contributory

Past dental history : Non contributory

Personal history : Pt gives h/o kharra chewing 4-5 times /day since 13 years

Family history : Non contributory

Intra oral examination –



A solitary swelling was present in the left posterior of the mandible over the lingual aspect of 38 hard in consistency oval in shape



OPG – A radiolucent lesion with well defined sclerotic margin was present over distal aspect of 38

Histopathology –

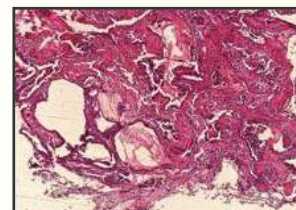


Fig 1 - 4X magnification showing highly cellular stroma with numerous mucin filled cystic spaces.

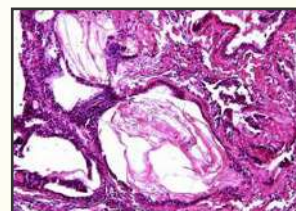


Fig 2 -10X magnification showing mucin filled cystic spaces lined by mucin , intermediate and epidermoid cells.

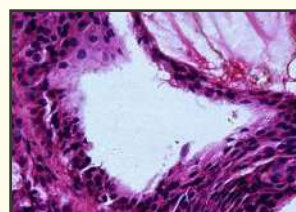


Fig 3 -40X magnification showing oval to polygonal shaped epidermoid cells , large polygonal cells with foamy cytoplasm suggestive of mucous cells

HISTOPATHOLOGIC DIAGNOSIS – Mucoepidermoid carcinoma (intraosseous)



Arteriovenous Malformation of the Mandible: A Case Report

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2017-2018



Abstract

Vascular malformations of the jaws can lead to disastrous complications, but there seems to be no consensus as to their treatment. The present report describes a rare case of a 7 year old male with a swelling on left side of mandible. The clinical and radiographic picture was that of a Benign tumor, however on MRI and histopathological evaluation, it was diagnosed as Arteriovenous Malformation of Left Mandible.

Introduction

Arteriovenous malformations (AVMs) of the mandible are rare and challenging entities. The lesion can present with a variety of clinical findings depending on the severity of malformation. Interosseous AVM often remains undiagnosed until a dramatic bleeding incident occurs, which is usually a result of dental manipulation. AVMs have a high propensity to bleed, which may be life threatening.¹

International Society for the Study of Vascular Anomalies has classified them as hemangioma (with endothelial proliferation) and vascular malformation (VM) (with normal endothelial tumor) relying on 1982 biologic classification of Mulliken and Glovacki² based on endothelial characteristics. The VMs can be further categorized as low flow lesions (capillary, venous, lymphatic malformations) and high flow lesions (AVMs, arteriovenous fistulae) according to blood flow characteristics.³ AVMs are most common high flow lesions.

Case report-

A 7 year old male reported to the department of Oral Medicine and Radiology with a chief complaint of swelling on left side of mandible since 5 months. The patient was apparently alright 5 months back when his parents noticed a small swelling in posterior region of lower left jaw. Initially the swelling was of grape size which increased gradually to present size. Patients past medical, dental, family history were non-contributory.

On extraoral examination-

Solitary, smooth swelling in Lower third of face on the left side extending from corner of mouth to 3cm anterior to pinna of ear approximately of size 2 X 4.5 cm². Overlying skin was normal. Swelling was hard on palpation. (Fig 1a,1b)



Intra-oral examination

A diffuse Swelling present in lower left buccal vestibule with Buccal cortical plate expansion from 32 to 36. & Mild lingual cortical plate expansion from 74 to 36. Swelling was hard in consistency. Overlying mucosa was normal in color and consistency. There was no Caries, periodontal pocket, Tooth mobility & Tenderness with associated tooth. (Fig 2a,2b)



A Provisional Diagnosis of Cyst/Benign Tumour was made.

OPG view of the mandible revealed a diverse multilocular pattern in the left body region of mandible with displacement of molar, the anterior part of the lesion in proximity of the developing premolars showed a typical tennis racket appearance with angular compartments that are separated by two or more straight septa. Posteriorly in the molar region the compartments appeared more rounded giving a honey comb appearance with altered bony trabeculae evident more posteriorly. Destruction of dental crypt of 37 is also seen as well as increase in the height of mandible and extruded D,E,36 compared to contralateral side.

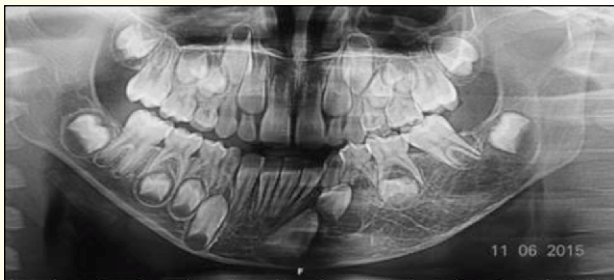


Fig 3a

The mandibular CBCT scan confirmed the extent of the lesion. coarse linear trabeculation areas of increased radiodensity with areas of small round radiolucency giving a honey comb appearance. In certain areas there are linear striae placed parallel to each other separating the radiolucent areas.

Axial Section shows buccal cortical plate expansion with buccal trabeculation giving a SUN-RAY appearance.

Lingual displacement of 33,34,35, root resorption with 36&loss of cortication of inferior alveolar nerve.

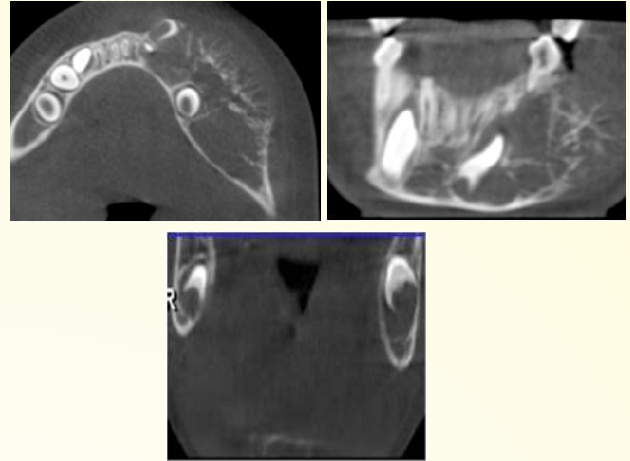


Fig 4a

Incisional biopsy was performed. Biopsy revealed the presence of proliferating mass of endothelial cells forming a plexiform arrangement of vascular spaces suggestive of Intraosseous Capillary Hemangioma.

Superselective arteriography was done as it remains an essential tool in the identification of the VM and contributory vessels showed Feeder vessels were branches of external carotid artery. MRI mandible plain and contrast study reveals altered signal intensity lesion involving left hemi mandible suggestive of slow flow AVM (Intraosseous Hemangioma).



Fig 5a

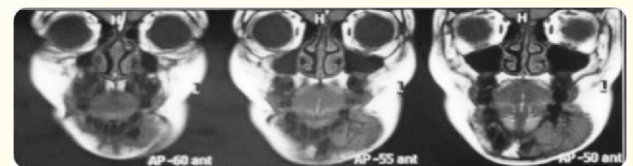
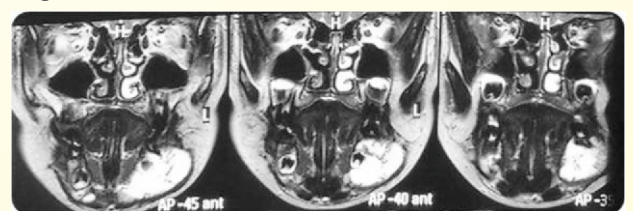


Fig 5b



Figc

Surgery was planned. Under G.A, Enucleation with Peripheral Osteotomy and Chemical Cauterization

Discussion

Vascular lesions of the jaws have an overall 2:1 female:male occurrence, with peak incidence in the second decade.^{4,5} In this female patient of 16 years of age, persistent pain and mandibular swelling from the past 2 years were main concerns initially. Although more than 50% of vascular lesions occur in the head and neck region, only a small percentage of these occur in jaws.⁵ They are twice as common in the mandible as in the maxilla.⁴ Mandibular VM usually appears during adolescence, with extremes at 3 months and 74 years of age.⁶ VMs are caused by a disturbance in the late stages of angiogenesis (truncal stage) and result in the persistence of AV anastomosis present during embryonic life. VMs, which usually present as developmental anomalies from birth, develop in proportion to physical growth. The increase in size of these VMs is asymptomatic and imperceptible at an early age and is promoted by local hemodynamic factors. The blood shunted to the malformation causes the lesion to grow, which in turn causes increased shunting of the blood, hence leading to a vicious cycle. This overgrowth can result from hormonal imbalances, vasomotor disturbances, infections or trauma.⁷

As has been seen in this lesion, it can present with a variety of clinical manifestations depending on the severity of the malformation; however, occasionally asymptomatic cases have also been reported in patients with AV malformation.^{7,8} Some of the signs and symptoms reported are soft tissue swelling, paresthesia, pain of variable intensity, teeth mobility and migration, discoloration of overlying skin and intraoral mucosal surfaces, facial asymmetry, local pulsation, noticeable bruit, erythematous gingival and bleeding around the teeth and bone resorption with palpable thrill as well as resorption of the roots in the affected area with no evident tooth-related cause or periapical pathoses.⁸ Systemic findings like blurred vision, epistaxis, paresthesia and cardiac abnormalities (murmur, hypertrophy and failure) have been reported.

The radiographic appearance is quite variable and therefore unreliable as a sole basis of diagnosis. Gelfand⁹ has summarized three typical radiographic appearances:

1. A sunray appearance created by trabecular bone between the vessels and osteolytic lesion.
2. A soap bubble or honeycomb appearance with occasional punched out areas.
3. An appearance described as ill-defined radiolucency.

Other radiographic findings may include cortical expansion as well as unilocular or multilocular cystic areas. Phleboliths, root resorption and lack of lamina dura have also been described.⁹ According to Stafne,¹⁰ radiographic appearance can resemble any destructive lesion of bone.

Numerous treatments in varying combinations and various degrees of success have been employed, including ligation, embolization, radical resection, use of sclerosing solutions, curettage and packing, radiation, bone wax packing in cavities followed by curettage, in two cases observation and even cryosurgery.

Embolization followed by surgical treatment is still the modern conventional approach. Embolization reduces blood flow, allowing excision to be performed subsequently within 48 hours–2 weeks. Embolization is also not without risk as embolic complications, allergic reactions, avascular necrosis of bone, delayed root development, defective mandibular growth have been reported. Resection of mandible can result in a variety of disabilities including impairment of speech articulation, salivary control, difficulty in swallowing, trismus and deviation of mandible toward the surgical side during functional movement. This led to the concept of immediate reconstruction which was introduced by Weaver *et al.* who used the patient's own prefrozen mandibular bone. Motamed *et al.* used this technique in AVM without freezing or autoclaving. The hollowed cortical shell acts as autogenous inductive tray. Greene *et al.*¹¹ advocate filling of particulate marrow in the cavity. As digital subtraction angiography and embolization treatment modality are not available in our institute, we had to rely on traditional method of careful ligation of feedervessel to prevent excessive blood loss, and intraoperative blood

infusion was done to prevent any complications.

Conclusion

The rareness of VMs is equalled only by the morbidity they cause and the urgency of the measures to be taken once detected, in all circumstances. A high degree of suspicion leads to their diagnosis and considerably reduces the risks of a catastrophe once identified. Treatment by catheterization and embolization with direct intralesional injection of cyanoacrylate allows for conservative anatomic and functional recovery. It is relatively noninvasive and safe when the anatomy and clinical status permit its use.

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Hemangio ameloblastoma - A case report

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The hemangioameloblastoma is described as an ameloblastoma in which part of the tumor contains spaces filled with blood. The present report describes a rare case of a 38 year old male patient with a humongous swelling on the chin since 8years

.The clinical and radiographic picture was that of ameloblastoma, however on USG, MRI and histopathological evaluation, it was diagnosed as Hemangioameloblastoma with spindle cell differentiation.

Keywords:

hemangioamelo blastoma, body of the mandible.

Introduction

Ameloblastoma is a true neoplasm of the enamel organ type tissue, being a benign odontogenic tumor that develops from epithelial rests of Malassez. It is unicentric, non - functional, intermittent in growth, anatomically benign, clinically persistent and has aggressive behavior. It represents 1% of all the tumors and 11% of odontogenic tumors. Its peak incidence is 3 - 4th decade of life. It has a male predilection.

Vast majority of ameloblastomas are found in the mandible, mostly in the ramus - angle region.

They can vary in size from just a few cm to the size of a football.

Ameloblastomas have various types which can be categorized broadly as histological and radiological

Case report

A 30 year old male reported to the department of Oral Medicine and Radiology with a chief complaint of swelling on the chin since 8 years. The patient was accidentally hit by a bull on the chin. Thereafter, the swelling had appeared which was painful as we ll. The pain gradually subsided. However, the swelling did not & kept on increasing in size until the present size. Patient had consulted a local practitioner for the same. The practitioner refuted any treatment & referred him to our institution. Patient's past medical and dental history was insignificant. He had a habit of chewing kharra 2 -3 times a day since past 10 years. However, he had discontinued the habit since last 4 months.

On extraoral examination, Gross assymetry of the face was evident.



Fig 1

Fig 2

Fig 3

A solitary, well - defined swelling present over the chin (approximately 8x7cm). (Fig 1a,b &c) The swelling extended antero - posteriorly from symphysis upto a line joining both angle of the mandible and medio - laterally up to bilateral parasymphysis region.

Overlying skin was of the same color

as the adjacent skin . The surface of the skin appeared smooth.

There was no evidence of any scar mark, pus discharge or visible pulsations. On palpation , local temperature was not raised.

The swelling was approximately 8x7x8cm in size. It was non - tender. The surface was regular and smooth. It had well - defined edges and was hard in consistency except at the lower border in 34 - 35 region which was relatively softer and compressible. The overlying skin was free. However, the swelling appeared to be fixed to the underlying bone.

Intra- oral examination

The patient had complete set of permanent dentition. A solitary swelling was present in the mandible , extending from 43 - 35, causing lingual displacement of the teeth(32 - 35). (Fig 2a.)



Fig 2a. Lingual displacement of 32- 35.

Expansion of buccal and lingual cortical plates with obliteration of buccal and lingual vestibule was evident. Overlying mucosa was of the same color as the adjacent mucosa . (Fig 2b).



Fig 2b. expansion of buccal and lingual cortical plates

On palpation, the swelling was hard in consistency and non tender. Involved teeth showed no mobility. A provisional diagnosis of odontogenic tumor was made.

OPG & lateral oblique view of the mandible revealed the presence of a lytic lesion in the mandible. The lesion extended from from 43 - 36 region, crossing the midline. Superior part of the lesion had multiple lytic areas while the inferior part had thick coarse septae. (Fig 3a & 3b)

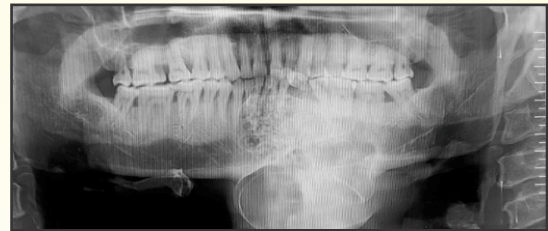


Fig 3a



Fig 3b. Inferior part of the lesion is showing multiple coarse septae.

CBCT scan was taken to delineate the exact extension and internal structure of the lesion. (Fig 4a, b &c) The 3 - D view revealed a large lytic , multilocular lesion of the mandible. It extended from 43 – 36 region crossing the midline. It had multiple small compartments in the superior aspect, while the inferior part had multiple large locules, resembling soap – bubbles. 33 was displaced. The lamina dura was intact & there was no external resorption. The cortication of the IAN canal was lost in 36-34 region. There was expansion of the lower border of the mandible with perforation at multiple sites. Hence, a clinico - radiographic diagnosis of ameloblastoma was made. Differential diagnosis of CGCG and central haemangioma were considered.

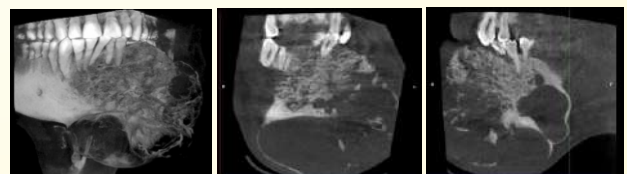


Fig. 4a

Fig.4b

Fig.4c

Fig 4b & 4c. Multiple small lytic areas on the superior aspect and large coarse trabeculae in the inferior part of the lesion giving a Soap

bubble appearance. Aspiration was attempted from the inferior part of the lesion . 15ml of blood was aspirated.

A USG was performed . USG revealed the presence of Irregular/ ill - defined, predominantly hypoechoic lesion of approx 4.5 x 3.2 x 4.4cm in the Lt. body of the mandible with cystic anechoic component of approximate size 3.7 x 3.7 x 3.4cm noted (Approx vol. 25cc) in between buccal and lingual cortical plates of mandible on Rt. Side. Contrast MRI of the patient revealed the presence of well - defined, heterogenous, multiloculated enhancing solid lesion, approx 7x5x6.5cm. Enhancing solid lesion was hypointense on T1 and T2 sequence. Cystic components showed varying intensity fluid - fluid & blood - fluid levels, s/o varying aged Haemorrhage. (Fig 5)

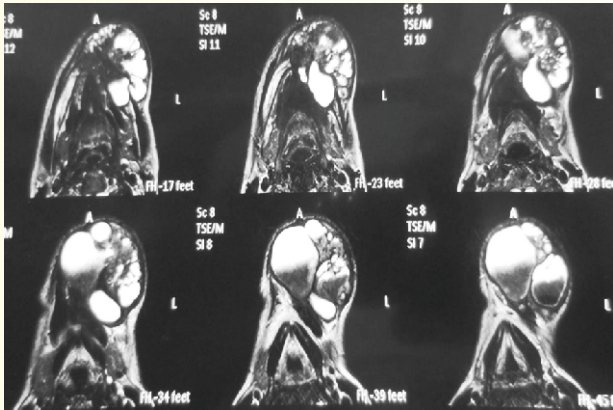


Fig 5. The cystic lesion suggesting a fluid - blood level, suggestive of varying aged haemorrhage.

Incisional biopsy was performed. Biopsy revealed the presence of odontogenic epithelial lining proliferating in the lumen in the form of plexiform pattern. Stroma showed numerous engorged blood vessels with blood elements and cavernous spaces. All the features pointed towards Haemangiomatous ameloblastoma with spindle cell differentiation. Surgery was planned Under G.A, segmental resection of the mandible was performed and reconstruction was done using recon plates. (Fig 6a and b.)



Fig 6a. Resected mandible

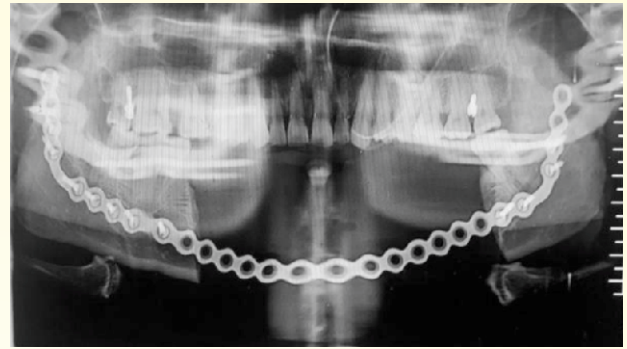


Fig 6b. Resected mandible reconstructed using Recon plates

Discussion

HA(Hemangiomatous Ameloblastoma) is an ameloblastoma in which part of the tumor contains spaces filled with blood. First case of H emangiomatous ameloblasoma was described by Kuhn in 1932 as a combination of hemangioma and ameloblastoma. Later, few scientists claimed it to be a Hamartoma or an eoplasm.

In 1966, Smith suggested that HA should not be considered as a separate histological entity because blood supply to the tumors is variable and various circumstances affect that. Various theories have been put forth to explain the pathogenesis of the vascular component in ameloblastomas. One school of thought suggests that during amelogenesis, many capillaries are associated with the outer enamel epithelium. They furnish the profuse blood supply necessary for enamel completion. It is likely that in HA, these blood vessels were abnormally induced to become a part of the tumor.

A second school of thought suggests the possibility of a traumatic incident providing a stimulus required for proliferation of epithelial cell rests in the PDL and subsequent tumor formation. Our case points in favor of this theory as the patient recollects being hit by a bull on the chin which led to the humongous swelling. Till date only 15 cases have been reported.

These cases revealed a male predilection. The age range varied from 15 -56 years .Mandible was more affected than maxilla. The lesion occurred with high prevalence in the posterior region of the jaw as a multilocular lesion. All these features are in concordance with our case. A follow up is mandatory for such lesions to rule out any malignant transformation or recurrence.

The patient in our case is under follow - up and till date there is no evidence of recurrence or malignant transformation.

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Ewing's Sarcoma of the Mandible -A rare case report

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2017-2018



Abstract:

Ewing's sarcoma (ES) is a malignancy primarily affecting bone tissue that is commonly observed in adolescents and young adults. Its occurrence in the head and neck region is unusual and generally involves the mandible and maxilla. In this article we report a case of Ewing's Sarcoma involving the mandible in a 7-year-old male patient.

Keywords: Ewing's sarcoma, immunohistochemistry, mandible.

Introduction:

Ewing's sarcoma (ES) is a rare malignant round cell tumor that was first described by James Ewing in 1921. It can occur in any bone but commonly it is found in the diaphysis of long bones and pelvic girdle. In the head and neck region, though involved rarely, predilection is toward mandible followed by maxilla. (1) It accounts for 4-10% of all primary bone cancers affecting adolescents and young. The mean age of occurrence in the head and neck region is 10.9 years. ES generally affects white population and the male sex (male/female ratio, 1.3-1.5:1). (2)

According to anatomical site of occurrence it is classified as: (a) intraosseous (most common) (b) extra skeletal (less common) and (c) periosteal (rare) type. (3) It is a notoriously aggressive and destructive malignancy of the bone arising from the marrow mesenchymal stem cells. It has been documented as a distinct malignancy of the mesenchymal stem cells that have undergone a unique reciprocal translocation of chromosomes 11 and 22. (4)

It is a part of the ES family of tumors (ESFT), which also includes peripheral neuroectodermal tumor (PNET),

neuroepithelioma and Askin's tumor. (5) This has made the diagnosis further complex. Immunohistochemistry and molecular assays for chromosomal translocation seem to be the mainstay of diagnosis.

Case Report:

A 7-year-old patient presented to the Department of Oral Medicine & Radiology, Government Dental College and Hospital, Nagpur with a swelling on the Lt. Side of his face for 9 months. The patient gave a history of blunt trauma on the left side of his face 9 months back, following which, the swelling appeared in the associated region. The swelling was accompanied with a continuous dull throbbing pain which subsided on taking medications. The swelling however persisted and increased in size thereafter.

Initially the swelling was pea-sized and present along the lower border of the mandible and gradually increased in size until it achieved its present dimensions. The patient also noticed a loose tooth in the left mandibular region. The past medical, dental and familial history were non-contributory.

On extra-oral examination, the swelling extended from the Lt. corner of the mouth upto the posterior border of the ramus antero-posteriorly and from the level of the tragus upto the inferior border of the mandible supero-inferiorly. The swelling was firm to hard in consistency, non-compressible, non-tender and non-pulsatile. [Fig 1 (a)] Intra-orally, a swelling was present on the buccal aspect of 36 associated with expansion of the anterior border of the ramus. 36 exhibited rebound mobility.



Figure 1(a) and (b): Clinical images of the patient at first and second visits respectively showing a diffuse extra-oral swelling in the left mandibular region.

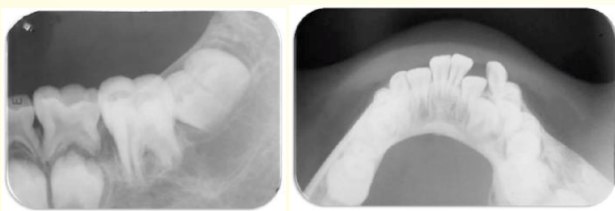
Based on the clinical examination, a clinical diagnosis of central hemangioma involving the Lt. mandible was made. The patient however, was lost to follow up and was taken to other medical practitioners and spiritual healers without any relief from symptoms.

The patient presented to the Department of Oral Medicine & Radiology, Government Dental College and Hospital, Nagpur, 7 months later with a swelling that had rapidly increased in size, due to lack of proper intervention. [Fig 1 (b)] On Intra-oral examination, buccal and lingual cortical plate expansion was evident in the 75, 36 region, posteriorly causing expansion of the anterior border of the Lt. ramus. (Fig. 2) Interesting the rebound mobility of 36, was lost, although the tooth remained grade II mobile.



Figure 2: Intraoral clinical image showing buccal and lingual expansion in 75 and 36 region and mesially displaced 36.

Intra-oral periapical radiograph (IOPA) (Fig.3) of the patient showed an ill-defined, multilocular lesion, which had caused loss of cortication of the dental papilla w.r.t 36 & 37. The mandibular occlusal view (Fig. 4) shows buccal and lingual cortical plate expansion in the 75 region, with mesially displaced 36.



Figures 3 and 4: IOPA and mandibular occlusal view showing the lytic lesion involving the Lt. mandible

Orthopantomogram (OPG) (Fig.5) of the patient showed an extensive lesion involving the Lt. mandible

causing destruction of the body, angle, ramus and coronoid process. Multiple linear radiopaque septa were seen within the lesion. 36 and 37 were superiorly displaced and showed retarded tooth development.



Figure 5: OPG showing the extensive multilocular lesion involving the Lt. mandible.

Ultrasonography of the lesion showed a lobulated heterogenous hypoechoic mass with hyperechoic septa within. It showed internal vascularity within it with an arterial waveform.

Computed Tomography (CT) (Fig. 6) showed a lytic expansile lesion involving the left mandible which was heterogeneously enhancing. It was abutting the posterolateral wall of the Lt. maxillary sinus and extending laterally into the subcutaneous space which was suggestive of neoplastic etiology.



Figure 6: Axial section of CT showing a heterogeneously enhancing lytic lesion involving the left mandible.

Magnetic resonance Imaging (MRI) [Fig 7(a), (b)] of the patient showed a well-defined heterogeneously enhancing lesion which was isointense on T1 sequences and heterogeneously hyperintense on T2 sequences. It showed multiple hyperintensities within it which were suggestive of calcifications. It was displacing the medial and lateral pterygoid muscles and abutting the lateral border of the tongue. MR Angiography (Fig. 8) revealed normal contrast opacification which was compressing the Lt. jugular vein and was related to the common carotid artery. The vascular structures displayed normal contrast opacification with a normal appearance of course and caliber.

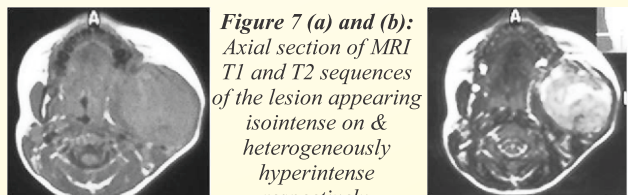


Figure 7 (a) and (b): Axial section of MRI T1 and T2 sequences of the lesion appearing isointense on T1 and heterogeneously hyperintense on T2 respectively.



Figure 8:
MR Angiography of the lesion showing normal coarse & caliber of the blood vessels.

Histopathological examination revealed small sheets of round to ovoid cells with clear cytoplasm and round hyperchromatic nuclei with inconspicuous nucleoli between the bony trabeculae. Areas of necrosis were also evident.

On Immunohistochemistry (IHC) of the lesion, CD 99, FLI-1 and Vimetin IHC markers were found to be positive in majority of the cells while Synaptophysin and CK IHC markers were positive in a few cells. Features were consistent with ES/PNET of the mandible.

The patient has undergone six cycles of multi-agent chemotherapy (Vincristine, Adriamycin & Cyclophosphamide) and is currently undergoing Intensity-Modulated Radiotherapy at a higher center.

Discussion:

ES is a malignant neoplasm that primarily affecting the long bones of the extremities with nearly 50% of reported cases involving the femur and pelvis. (1) It exhibits a marked predilection for whites and is rarely seen among blacks (6) The majority of the patients affected are between the ages 5 and 20, whereas the disease is distinctly uncommon in individuals before age 5 and after age 30. (6), (7). ES arising from the bones of the head and neck region is exceedingly uncommon. When it occurs in the jaw, mandible is more frequently affected than the maxilla (8)

In the head neck region there are nonspecific clinical findings for ES, although most of the patients' complaints at the time of presentation are commonly associated with mass effect of the tumor and include rapid growth, swelling of the affected area and pain. (9), (10) In addition, when this tumor arises in the mandible other signs and symptoms, such as loosening teeth, otitis media, and paresthesia, may be also observed. Systemic symptoms such as fever, often remittent, about 38°C, weight loss, and anemia are observed among various patients (11). The present case exhibited clinical aspects similar to those reported in the literature for cases in the head and neck region: it was located in the mandible, displayed a rapidly progressive growth and was accompanied by mobility of a tooth in the associated region, but pain

and fever were absent at presentation. The presentation was non-specific and demanded multiple complementary investigations to arrive at a definite diagnosis.

Radiographically, ES appears as a poorly defined osteolytic lesion that may be frequently associated with cortical erosion and soft tissue mass adjacent to the destructive site. (7) Although ES is most often seen presenting osteolytic change with bone destruction, this aspect is not a pathognomonic feature, as other lesions can have the same image pattern, such as neuroblastoma, osteogenic sarcoma, histiocytosis X, and osteomyelitis. (8)

The presence of sun-ray spicules of periosteal bone and displacement or destruction of unerupted tooth follicles have been described as the commonest radiological features for ES affecting jaw bones. (9) Further, the presence of the laminar periosteal response (known as “onion skin” reaction) has also been described. (7) In the present case, the radiographic finding was an osteolytic lesion associated with cortical perforation on the buccal and lingual surfaces of the mandible. Neither sun-ray spicules of periosteal bone nor an “onion skin reaction” of bone cortical were observed.

Histopathologically, ES is composed of small, poorly differentiated cells with medium-size, round or oval nuclei exhibiting a fine chromatin pattern, small nucleoli and scanty cytoplasm. (7) The use of immunohistochemistry has helped in the diagnosis of this tumor. In general, the tumor cells are positive for vimentin and CD99 and negative for neural, skeletal, vascular and lymphoid cell markers. (6) The present case was positive for CD99, vimentin and FLI-1, leading to a diagnosis of ES.

It has been reported that combined therapy including surgery, radiotherapy and chemotherapy is the best approach for ES (12) The multidisciplinary treatment protocols has dramatically improved the 5-year survival rate of patients with ES from less than 16% to more than 75% of cases. (8). The prognosis of ES is poor because hematogenous spread and lung metastases occur within a few months after diagnosis, although the tumor burden is considered today as an important factor of prognosis. (6)

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MARSUPIALIZATION OF CYSTS IN PEDIATRIC PATIENTS

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2017-2018



- Marsupialization in its true sense means the conversion of the cyst into a pouch, and this implies the creation of a sizable stoma or opening that has the ability to maintain itself. Basically marsupialization is synonymous with decompression leading to reduction in the pressure in the cystic cavity with the help of a sizable stoma.

CASE REPORT

- A 11 year old male patient reported to the Department of Pedodontics & Preventive Dentistry with a chief complaint of swelling in the left back region of lower jaw.
- OPG revealed two well defined radiolucencies with corticated margins, on the left body and right ramus of mandible respectively.



3 month follow-up picture post treatment

- Complete resolution of pathology is appreciable on the left side of mandible.
- The involved tooth has gained its eruption momentum.
- While on the right side more follow up visits are required to appreciate any change due to the size of the defect.



- The lesion was suspected to be dentigerous cyst, but on histologic examination of cystic lining, it turned out to be an Odontogenic Keratocyst.
- Hence to conclude, further follow – up radiographs are required to evaluate the treatment procedure.



Management of avulsed teeth

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Case report

A 12 year old male patient was reported with an avulsed two maxillary central incisors during intubation procedure in general anaesthesia in the Department of Paedodontics and preventive Dentistry. Patient brought the teeth in dry storage media after 1 month. The crowns of the avulsed teeth were intact and roots had a closed apex. No other oral injury was detected clinically. As the two important tissue PDL(periodontal ligament) and pulp both were non-vital due to a long duration in dry storage media. The necrosed PDL was removed gently by scraping with gauze. Extra-oral root canal therapy was performed to remove necrosed pulpal tissue and root canals were filled with CaOH(calcium hydroxide)and packed with zinc oxide temporary dressing. Teeth were initially kept in 3% citric acid for 3 min so that all the embedded necrosed PDL get removed. After that teeth were kept in 2.5% NaF(sodium fluoride)solution for 20 min. Meanwhile the sockets were prepared. Anaesthesia was given to patient and the sockets were cleaned by irrigating with saline so as to remove all the granulation tissue. Teeth werethen re-implanted with light digital pressure in its proper position in respective sockets. A rigid splint was done with orthodontic wire

for 4 weeks.

The patient was placed on systemic antibiotic (amoxicillin 2 g/day for 7 days) with analgesic medicines on demand.The patient received instructions about an appropriate soft diet and adequate oral personal oral hygiene (chlorhexidine 0.12% mouth rinse twice a day for 1 week and a soft toothbrush to brush his teeth after each meal). He was, then, placed on a soft diet and told to avoid biting directly with his front teeth.

After 3 month when there were no signs of failure (mobility, tenderness on percussion, extrusion, bone loss or gingival recession) teethwere obturated. The most important aspectthere is that these re-implanted teeth showed a tendency of root resorption on one side and deposition of bone on other side which is called as replacement resorption and it is normal and ideal phenomenon in such set of conditions. It is different from inflammatory resorption in which root is resorbed and not replaced by bone.After 5 years when the teeth were lost due to complete replacement resorption and patient was prepared for other fixed therapy, the implant was given.

In this way the beautiful smile of the patient was restored by re-implantation of the avulsed teeth for long duration.

Case report

A 12 year old male patient was reported with an avulsed two maxillary central incisors during intubation procedure in general anaesthesia in the Department of Paedodontics and preventive Dentistry. Patient brought the teeth in dry storage



Pre-operative Photograph



Post-operative Photograph



First yr. P.G. 2017-18



Second yr. P.G. 2017-18



Third yr. P.G. 2017-18

LINK

