**DEPARTMENT OF ORAL PATHOLOGY - SURGICAL PATHOLOGY REPORT**

**Date:** 31/08/2017

**Type of Biopsy:** Incisional

**Site of Biopsy:** Left lower buccal vestibule **Clinical Impression:** Carcinoma alveolus

**Gross Description:**

Received three bottles of formalin fixed soft and hard tissue specimens labelled as A, B, C..

Bottle A labelled as "Marginal gingiva irt 45" contained tooth specimen 45 and a single bit of soft tissue

specimen, creamy brown in color, firm in consistency, measuring 1.6x1x0.5cm. Given for processing as A1,A2.

Soft tissue separated out from the tooth specimen given for processing as A3. Tooth specimen preserved.

Bottle B labelled as "Interdental bone and posterior vestibular mucosa" contained interdental bone bit and two

soft tissue bits. Larger soft tissue bit measuring 0.6x0.5x0.3cm, given for processing as B1. Smaller bit given for

processing as B2. Hard tissue bit (interdental bone) measuring 0.9x0.5x0.3cm. Given for decalcification

followed by processing as B3.

Bottle C labelled as " Anterior vestibular mucosa" contained a single bit of soft tissue specimen, creamy brown

in color, firm in consistency, measuring 2x0.9x0.3cm. Given for processing as C1, C2.

**Microscopic Description:**

Multiple sections studied exhibit:

Superficial parakeratinised stratified squamous epithelium showing areas of hyperplasia and atrophy.

Focally epithelium shows features of dysplasia.

In one area of superficial epithelium,dysplastic epithelial cells in the form of islands are seen dropping off into

the underlying connective tissue stroma.

Sheets and few islands of dysplastic epithelial cells noted with attempted keratin pearl formation.

The underlying connective tissue stroma is fibrous with focal collections of chronic inflammatory cells chiefly

plasma cells and lymphocytes.

Numerous budding and proliferating blood vessels of varying sizes and shapes noted.

Areas of hemorrhage and necrosis seen.

Deeper areas shows normal muscle fibre bundles, adipocytes and mucous acini.

FNAC LYMPH NODE:

Smear studied shows predominantly mature lymphocytes and a few lymphocytes at different stages of

differentiation and neutrophils in a fibrinous background.

Normal nucleated squamous epithelial cells and a few atypical epithelial cells showing hyperchromatic nuclei,

increased nuclear:cytoplasmic ratio and nuclear pleomorphism, suggestive of metatstatic squamous cell

carcinoma of lymph node noticed.

**Impression:**

ORAL SQUAMOUS CELL CARCINOMA ( MODERATE TO WELL DIFFERENTIATED

**Radiology Report**

**Created Date:** 19/09/2017

**Study Done:**

**SPIRAL CT NECK-CONTRAST + CHEST**

**Clinical info: Known case of SCC alveolus for evaluation**

NECK

Enhancing soft tissue density lesion involving right cheek extending to inferior bucco gingival sulcus extending

from the level of incisors to the second molar.Lesion erodes the mandible at these levels.No extension to floor

of mouth.

Naso and oropharynx appear normal.

Supraglottis ,glottis and subglottis appear normal.

Enlarged suspicious nodes are seen in level Ia measuring 1.6 cm, bilateral level Ib measuring 1.1 cm , right

level II measuring 1.5 cm

Bilateral neck vessels are normal.

Thyroid gland shows homogenous dense enhancement and is normal in size and outline. No focal lesion seen.

CHEST

Lung parenchyma appears normal.No nodules

Subcentimetric nodes in right upper paratracheal and AP window

Subcentimetric bilateral axillary lymph nodes noted

Mediatstinal vasuclar structures are normal

No pleural effusion

Bones are normal

**Impression:**

**Enhancing soft tissue density lesion involving right cheek and gingivobuccal sulcus eroding the mandible**

**with suspicious cervical lymph nodes as described**

**RADIOLOGY REPORT**

**Created Date:** 26/09/2017

**Study Done:**

**ULTRASOUND OF NECK**

Right lobe of thyroid measures 16x12x42mm.

Left lobe of thyroid measures 13x14x37mm.

Isthmus measures 4mm.

Both lobes of thyroid appear normal in echotexture and vascularity.

Multiple lymphnodes noted in level Ia, measuring 2.3x1.5cm with heteroechoic appearance and

increased vascularity.

Multiple bilateral level Ib, II, III noted, some of nodes with no fatty hilum, largest in right level Ib

measuring 1.3x0.6cm and left level Ib measuring 0.9x0.4cm.

Bilateral neck vessels grossly normal.

**Impression:**

***Known case of alveolar carcinoma (MDSCC).***

• **Multiple cervical lymphnodes described.**

• **FNAC taken from left level Ib.**

**SURGICAL PATHOLOGY REPORT**

**Date of sample collection :** 03/10/2017

**Received on :** 03/10/2017

**Reported Date :** 10/10/2017

**Clinical Impression :**

SCC alveolus

**Gross Description :**

Received fresh is a specimen labelled " Left level IB", consists of fibrofatty tissue measuring 5x3.5x.5cm.

Cystic lesion fill with necrotic material. Lesion measuring 2.5x2x1.5cm. 4 smaller nodule ranging in size from

0.6-0.9cm.

2 section

2 imprint

Frozen read as -Lymph node - Cystic metastatic SCC

The remaining specimen transferred into formalin and representative sections are submitted in cassettes FSR1 &

FSR2.

Subsequently received in formalin are 15 specimens. The Ist specimen labelled "Right segmented

mandibulectomy", consists of the smale with 6 tooth. The specimen is a whole measuring 7x4x2cm. An

ulcerative lesion seen measuring 2.3x1x0.3cm in the gingivo buccal sulcus towards the root of IInd premolar and

first molar. Raw surface inked. The lesion is 1.2cm from the lateral soft tissue margin, 0.6cm from lateral

mucosal margin, 1.5cm from anterior soft tissue and mucosal margin, 1.5cm from posterior mucosal and soft

tissue margin and 0.2cm from medial mucosal and soft tissue margin. The lesion seen to erode the mandible

below the 2rd molar. Representative sections are submitted as follows:

A1 - Lateral mucosal margin

A2 - Lateral soft tissue margin with lesion

A3 - Anterior mucosal and soft tissue margin

A4 - Medial mucosal and soft tissue margin

A5 - Posterior soift tissue and mucosal margin.

A6 & A7 - Anterior bony margin

A8 - Posterior bony margin

A9 - Lesion with bone

A10 - Lesion .

Specimen II labelled "Right level Ia, IB", consists of fibrofatty tissue measuring 5x4x2cm. 2 lymph nodes and

salivary gland tissue identified. Largest lymph node measuring 2.5cm in greatest dimension. Smallest lymph

node measuring 1cm in greatst dimension. Representative sections are submitted in cassettes B1 to B3.

Specimen III labelled " Right level 2 A", consists of multiple fibrofatty tissue in aggregate measuring 3x2x1cm.

5 lymph nodes identified, largest measuring 1.5cm in greatest dimension and smallest 0.8cm in greatest

dimension. Representative sections are submnitted in cassettes C1 to C3.

Specimen IV labelled "Right level 2B", consists of fibrofatty tissue measuring 2.5x1x0.5cm. 2 lymph nodes

identified, largest measuring 1.5cm in greatest dimension. Smallest mesuring 1cm in greatest dimension.

Entire specimen submitted in cassettes D1 & D2.

Specimen V labelled "Right level III, IV", consists of multile fibrofatty tissue measuring 4x3x1cm. 4 lymph

nodes identified, largest measuring 1cm in greatest dimension. Smallest measuring 0.5cm in greatest

dimension. Representative sections are submitted in cassettes E1 & E2.

Specimen VI labelled "Right prefacial node", consists of single node measuring 0.5cm in greatest dimension.

Entire specimen submitted in cassette F.

Specimen VII labelled "Right level IB" consists of fibrofatty tissue measuring 5x3.5x2cm. 4 lymph nodes and

salivary gland tissue identified, largest lymph node measuring 2cm in greatest dimension. Representative

sections are submitted in cassettes G1 to G3.

specimen VIII labelled "Left level 2 A lymph node"consists of fibrofatty tissue measuring 3x2x1cm. 3 lymph

node identified. Representative sections are submitted in cassette H.

Specimen IX labelled "Left level 2 B lymph node", consists of fibrofatty tissue measuring 3.5x2x1.5cm. 1

lymph node identified, largest measuring 1cm in greatest dimension. Representative sections are submitted in

cassettes J1 & J2.

Specimen X labelled "Additional posterior margin", consists of fibrofatty tissue measuring 0.8x0.5x0.5cm.

Entire specimen submitted in cassette K.

Specimen XI labelled "Left level 3 lymph nodes", consists of fibrofatty tissue measuring 2.5x2.5x1cm. No

lymph node identified. Entire specimen submitted in cassettes L1 & L2.

Specimen XII labelled "Left level 4 lymph node" consists of fibrofatty tissue measuring 3x3x1cm. 5 lymph

nodes identified. Representative sections are submitted in cassettes M1 & M2.

Specimen XIII labelled "Additional deep soft tissue margin", consists of fibrofatty tissue measuring

1x0.8x0.5cm. Entire specimen submitted in cassette N.

Specimen XIV labelled "Additional anterior mucosal margin" consists of fibrofatty tissue measuring

1.2x0.8x0.5cm. Entire specimen submitted in cassette P.

Specimen XV labelled "Anterior commissure polyp", consists of 3 grey white tissue bits aggregate measuring

0.8x0.5x0.2cm. Entire specimen submitted in cassette Q.

**Microscopic Description :**

FSR1 & FSR2 -Section from lymph node shows infiltrative neoplasm composed of cells arranged in diffuse,

nests, cystic pattern. Cells are lined by keratinised squamous cells. Foci showing keratin pearl and many

parakeratotic keratin pearl seen. Perinodal spread seen.

A. Section shows an infiltrative neoplasm composed of cells arranged in nests with dense lymphoplasmacytic

infiltrates. The neoplastic cells are polygonal with round nucleus with prominent nucleoli. Foci shows non

keratinised and keratinised cells. The adjacent squamous epithelium shows dysplasia. A2shows keratin material

with giant cell reaction. Scattered mitosis seen.

B. 2 lymph nodes and salivary gland tissue - Free of tumour

C. 5 lymph nodes - Free of tumour

D. 2 lymph nodes - Free of tumour

E. 4 lymph nodes - Free of tumour

F. 2 lymph nodes - free of tumour

G. 4 lymph nodes - Free of tumour

H. 3 lymphnodes - Free of tumour

J. 10 lymph nodes - Free of tumour

K. Additional posterior margin - Shows ulcerated mucosa

L. 1 lymph node - Free of tumour

M. 6 lymph nodes - Free of tumour

N. Additional deep soft tissue margin - Free of tumour

P. Additional anterior mucosal margin with foci of low grade dysplasia

Q. Anterior commissure polyp - Myxohyaline vocal cord polyp seen.

**Impression :**

Right Segmental mandibulectomy:

- Squamous cell carcinoma, well differentiated

- Tumour size : 2.3x1x 0.8 cm

- Depth of lesion : 0.8 cm

- All margins are free of tumour

- Bony margins - free of tumor

- Bony invasion - seen

- Additional anterior mucosal margin - low grade dysplasia noted.

- Additional posterior mucosal margin - free of tumor

- Additional deep margin - Free of tumour.

- No PNI / LVE seen

Lymph nodes:

Left level IB (FS) - Metastatic carcinoma seen with perinodal spread and measures 2.5cm

B. Right level Ia & I B- free of tyumour

C. Right level II A - Free of tumour

D. Right level II B - Free of tumour

E. Right level III and IV - Free of tumour

F. Prefacial node - Free of tumour

G. Level I B - Free of tumour

H. Left level IIA - Free of tumour

J. Left level II B - free of tumour

L. Left level II - Free of tumour

M. Left level IV - Free of tumour

Stage: p T4N2b

Anterior commissure polyp biopsy - Vocal cord polyp-myxohyaline stage.

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| **Date of Admission :**02/10/2017 | **Date of Procedure :**03/10/2017 |

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| **Date of Discharge :**14/10/2017 |

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| **Discharging Status :**FOLLOW UP DISCHARGE SUMMARY |

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| **DIAGNOSIS :** |
| k/c/o ca lower alveolus cT4N1 |

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| **PROCEDURE DONE :** |
| WLE+segmental mandibulectomy+B/L SND+fibula flap reconstruction+tracheostomy under GA on 3/10/17 |

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| **HISTORY :** |
| 46 Year old came with the complaints of pain in the lower right teeth region since 1 month for which he consulted at AIMS dental college and underwent tooth extraction with biopsy of a lesion around the tooth. complaint of restricted mouth opening since 4 years. patient doesn't complain of voice change no difficulty in swallowing/ breathing difficulty. co morbidities : recently diagnosed DM on regular medications. |

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| **CLINICAL EXAMINATION :** |
| On Examination: KPS: 90 Oral cavity: Mouth opening limited (2 and half Finger width) thickened raised lesion involving right lower alveolus from first premolar to second molar with involvement of adjoining GB sulcus. lesion meausres 2x1cm. indurated. rest oral mucosa shows features of submucosal fibrosis. right buccal mucosa is diffusely erthematous. no other suspicious lesion in oral cavity. adjacent premolar and molar are mobile. first premolar and first molar socket is empty. no bony defect / mandible bulging palpable. FOM is free neck: right level IB node measuring 2x2cm, firm. scopy: right vocal cord anterior 1/3 and anterior commissure shows whitish keratotic polypoidal lesion . both VC are mobile. |

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| Final HPE- Right Segmental mandibulectomy: - Squamous cell carcinoma, well differentiated - Tumour size : 2.3x1x 0.8 cm -Depth of lesion : 0.8 cm - All margins are free of tumour - Bony margins - free of tumor - Bony invasion - seen - Additional anterior mucosal margin - low grade dysplasia noted. - Additional posterior mucosal margin - free of tumor - Additional deep margin - Free of tumour. - No PNI / LVE seen Lymph nodes: Left level IB (FS) - Metastatic carcinoma seen with perinodal spread and measures 2.5cm B. Right level Ia & I B- free of tyumour C. Right level II A - Free of tumour D. Right level II B - Free of tumour E. Right level III and IV - Free of tumour F. Prefacial node - Free of tumour G. Level I B - Free of tumour H. Left level IIA - Free of tumour J. Left level II B - free of tumour L. Left level II - Free of tumour M. Left level IV - Free of tumour Stage: p T4N2b Anterior commissure polyp biopsy - Vocal cord polyp-myxohyaline stage. |

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| **COURSE IN THE HOSPITAL AND DISCUSSION :** |
| 46 Year old Maniyan was admitted with above mentioned complaints. after all preliminary examinations and PAC Clearance he underwent WLE+segmental mandibulectomy+B/L SND+fibula flap reconstruction+tracheostomy under GA on 3/10/17.Both intra and post operative period uneventful.At the time of discharge he is symptomatically better with stable vitals. |

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| **OPERATIVE FINDINGS :** |
| WLE+segmental mandibulectomy+B/L SND+fibula flap reconstruction+tracheostomy under GA on 3/10/17 by Dr Findings: Ulceroproliferative lesion of the right alveolus extending from second premolar to the canine tooth. No extension onto the buccal mucosa or the floor of the mouth. Large suspicious lymph nodes noted in right IIA, left IIA and IIB. Cheek flap raised to expose the tumour. Lateral mucosal cuts taken 1 cm away from the tumour, onto the lip. Adequate lateral soft tissue margin maintained while raising the flap. Medial mucosal margin taken on to the floor of mouth. Flap raised off the mandible to expose the periosteum. Preplating performed with 2.3mm plate and 8+10 mm screws. Plating performed from left canine to the ascending ramus, after placing the patient in intermaxillary fixation. Bone cuts performed laterally at the angle and medially at the canine tooth socket. Specimen delivered en bloc with adequate margins. Additional margins taken as lateral soft tissue (from the cheek flap) and posterior mucosal (RMT region). Bilateral SND performed from I-IV with preservation of SAN, SCM and IJV. Haemostasis achieved and drain placed. Reconstruction performed with fibular free flap. Left fibula flap harvest notes. Notes: patient in supine position with left hip and knee flexed and internally rotated. Markings done and the perforator identified with hand held doppler. Skin paddle marked around the perforator. Under tourniquet control, anterior border of the skin paddle incised to the fascia. Fasciocutaneous flap raised off the peroneus muscles till the posterior septum is reached. The perforator is identified and preserved. The peroneus muscle dissected off the fibula leaving a cobblestone pattern cuff of muscle over the bone. The anterior intermuscular septum is seen and incised. The EDL and EHL muscles dissected off the fibula preserving deep peroneal nerve and the interosseous membrane reached. Proximal and distal osteotomy done. Posterior cut over the skin paddle given and dissection continued subfascially above the soleus muscle and FHL identified and dissected off the fibula. Pedicle identified just adjacent to the FHL. Two bone hooks applied and the fibula rotated externally. The interosseous membrane incised. Flap confirmed for bleeding The pedicle dissection done and flap the delivered out. Single osteotomy given and inset done. Anastomosis done to facial artery and EJV. Drains placed and closure done in layers. Patient withstood the procedure well. |

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| **PROGNOSIS ON DISCHARGE :** |
| fair |

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| **ADVICE ON DISCHARGE :** |
| oral care |

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| **DIET RECOMMENDATIONS :** |
| soft and blend oral diet |

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| **PHYSICAL ACTIVITY :** |
| ambulation |

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| **DISCHARGE MEDICATION :** |
| Tab Dolo 650mg 0-0-1 X7days Tab Pan 40mg OD X 7days tab diabend mex 60mg 1-0-0 x to continue tab nerve up 1 0d x to continue tab atorva 10mg 1 hs x to continue |

**Tumour Board Discussion**

**Date of tumor board discussion :** 20/09/2017

**Relevant clinical details :**

c/o pain in the lower right teeth region since 1 month for which he consulted at AIMS dental college and

underwent tooth extraction with biopsy of a lesion around the tooth.

complaint of restricted mouth opening since 4 years.

patient doesnt complain of voice change

no difficulty in swallowing/ breathing difficulty.

Habits: Pan chewing/ smoking / alcohol consumption since 15 years (Gutka - stopped 3 months back)

co morbidities : recently diagnosed DM on regular medications.

o/e: KPS: 90

Oral cavity: Mouth opening limited (2 and half Finger width) thickened raised lesion involving right lower

alveolus from first premolar to second molar with involvement of adjoining GB sulcus. lesion meausres 2x1cm.

indurated.

rest oral mucosa shows features of submucosal fibrosis.

right buccal mucosa is diffusely erthematous.

no other suspicious lesion in oral cavity.

adjacent premolar and molar are mobile.

first premolar and first molar socket is empty.

no bony defect / mandible bulging palpable.

FOM is free

neck: right level IB node measuring 2x2cm, firm.

scopy: right vocal cord anterior 1/3 and anterior commissure shows whitish keratotic polypoidal lesion . both VC

are mobile.

impression : ca lower alveolus cT4N1 with ? synchronous primary of right VC

**Histology (include histology done / reviewed elsewhere) :**

Biopsy report: MDSCC

**Other relevant investigations (including metastatic workup) :**

CT HN + Chest shows: erosion of mandible, lesion extends onto buccal mucosa beyond GB Sulcus. suspicious

level Ia measuring 1.6 cm, bilateral level Ib measuring 1.1 cm , right level II measuring 1.5 cm CT Chestnormal

**Agreed Plan of management :**

WLE+ Segmental mandibulectomy + I/L ND + Free fibula flap

DL Scopy biopsy during main surgery if EBRT is planned for glottic lesion

**HISTOPATHOLOGY TUMOUR BOARD**

**Histology (include histology done / reviewed elsewhere) :**

Right Segmental mandibulectomy: - Squamous cell carcinoma, well differentiated - Tumour size : 2.3x1x 0.8 cm

- Depth of lesion : 0.8 cm - All margins are free of tumour - Bony margins - free of tumor - Bony invasion - seen

- Additional anterior mucosal margin - low grade dysplasia noted. - Additional posterior mucosal margin - free

of tumor - Additional deep margin - Free of tumour. - No PNI / LVE seen Lymph nodes: Left level IB (FS) -

Metastatic carcinoma seen with perinodal spread and measures 2.5cm B. Right level Ia & I B- free of tyumour C.

Right level II A - Free of tumour D. Right level II B - Free of tumour E. Right level III and IV - Free of tumour

F. Prefacial node - Free of tumour G. Level I B - Free of tumour H. Left level IIA - Free of tumour J. Left level

II B - free of tumour L. Left level II - Free of tumour M. Left level IV - Free of tumour Stage: p T4N2b Anterior

commissure polyp biopsy - Vocal cord polyp-myxohyaline stage.

**Agreed Plan of management :**

chemo RT

**Operative Notes**

**Date : 06/10/2017**

**ProgressNotes :**

WLE+segmental mandibulectomy+B/L SND+fibula flap reconstruction+tracheostomy under GA on 3/10/17

Findings: Ulceroproliferative lesion of the right alveolus extending from second premolar to the canine tooth.

No extension onto the buccal mucosa or the floor of the mouth. Large suspicious lymph nodes noted in right

IIA, left IIA and IIB.

Cheek flap raised to expose the tumour. Lateral mucosal cuts taken 1 cm away from the tumour, onto the lip.

Adequate lateral soft tissue margin maintained while raising the flap. Medial mucosal margin taken on to the

floor of mouth. Flap raised off the mandible to expose the periosteum. Preplating performed with 2.3mm plate

and 8+10 mm screws. Plating performed from left canine to the ascending ramus, after placing the patient in

intermaxillary fixation. Bone cuts performed laterally at the angle and medially at the canine tooth socket.

Specimen delivered en bloc with adequate margins. Additional margins taken as lateral soft tissue (from the

cheek flap) and posterior mucosal (RMT region). Bilateral SND performed from I-IV with preservation of

SAN, SCM and IJV. Haemostasis achieved and drain placed. Reconstruction performed with fibular free flap.

**Progress Notes**

**Date : 12/09/2022**

**ProgressNotes :**

Carcinoma Right lower Alveolus

S/P: WLE+segmental mandibulectomy+B/L SND+fibula flap reconstruction+tracheostomy under GA on

3/10/17 Well Differentiated Squamous cell carcinoma pT4N1M0

Completed Post Operative Concurrent chemoradiation therapy using VMAT technique on 3.1.2018

doing fine

l/r small erythroplakic patch on left lateral tongue ,BM

-status quo

adv- 6 monthly follow up /sos

dental consult

rad onco consult

Aquasol A