**Radiology Report**

**Created Date:** 06/04/2017

**Study Done:**

**MRI NECK**

The study shows irregular soft tissue thickening and enhancement along the superior border of the flap and

erodes the alveolar border of left maxilla, adjacent hard palate ,extends posteriorly uptil the pterygoid

plate,erodes the anterior and lateral wall of left maxillary sinus. Pooled secretions also noted in the sinus .Nasal

cavity appear clear.Fibula along the inferior aspect of flap appear uninvolved.

Lesion infiltrates the overlying skin and subcutaneous fat anteriorly , involves the left lateral aspect of upper

lip ,nasolabial groove and extends anterolaterally to the buccal pad of fat.

Suspicious involvement of medial pterygoid muscle noted.Inferior alveolar nerve appear thickened on left side

suspecting infiltration.Rest of the masticator space appear fee .Orbit appear clear

Base of skull appear normal.No intracranial extension.

Larynx and pharynx appear clear.

Few suspicious nodes are seen in right level Ib & II.

Carotid and jugular vessels appear normal.

**Impression:**

**Imaging favours tumor reccurrence in the superior aspect of flap infiltrating the left maxilla as described.**

**SURGICAL PATHOLOGY REPORT**

**Date of sample collection :** 20/04/2017

**Received on :** 20/04/2017

**Reported Date :** 24/04/2017

**Clinical Impression :**

Ca. buccal mucosa

**Gross Description :**

Received fresh are two specimens.

The Ist specimen labelled "Upper lip soft tissue margin", consists of fibrofatty tissue measuring 0.8x0.6x0.4cm.

No grey white or firm area seen.

Frozen I read as - Showing only skeletal muscle and nerve bundles.

Specime II labelled "Superior soft tissue margin", consists of fibrofatty tissue measuring 0.7x0.5x0.4cm.

Frozen II read as - Shows nests of squamous cell and single cells infiltrating between.

Subsequently received in formalin are 14 specimens.

The Ist specimen consists of left sided maxilla and 3 tooth, buccal mucosa, portion of mandible and large

portion of skin. A portion of upper lip also noted (6.5cm) whole measuring 11(AP)x7.5(SI)x8(ML)cm.

Overlying skin measuring 7.5x7cm. It is showing a nodular smooth growth measuring 3.3x3x2.6cm. Raw

surface is inked. An ulcerative lesion is seen involving retromolar trigone ,extending anteriorly and towards the

skin laterally and also eroding the floor of maxillary sinus superiorly to involve its anterolateral wall ; whole

lesion measuring 6.5x5x5.5cm. Lesion is seen to abut the anterior mucosal margin, 1cm from posterior mucosal

margin, 0.8cm from posterior soft tissue and is involving skin . Representative sections are submitted as follows:

A1 - Anterior mucosal margin

A2 - Posterior mucosal margin

A3- Skin nodule

A4 - Lesion with posterior soft tissue

A5 - Lesion +skin+part of skin nodule

A6 - Skin + Lesion +posterior inked soft tissue

A7 - Lesion with superior inked soft tissue margin (adjacent to the anterolateral maxillary sinus)

A8 - Superior skin and soft tissue margin

A9 - Soft tissue in the pterygoid plate area

A10 - Superior skin and soft tissue shaved

A11 - Lesion from the anterolateral wall of sinus

A12 - Lesion shaved off from the mandible

A13 & A14 - Lesion proper.

Specimen II labelled "Superolateral bone margin", consists of fragment of bone measuring 2.5x1.3x0.2cm.

Entire specimen submitted in cassette B.

Specimen III labelled "Additional posterior mucosal margin", consists of small mucosal tissue bit measuring

1.4x0.4x0.4cm. Entire specimen submitted in cassette C

Specimen IV labelled "Superior mucosal margin maxillary sinus",consists of small mucosa covered tissue bit

measuring 1x0.7x0.3cm.

Specimen V labelled "Superior bone", consists of fragment of bone measuring 2.5x2x1cm. Entire specimen

submitted in cassette E.

Specimen VI labelled "Final superior mucosal margin inferotemporal fossa" consists of tiny tissue bit measuring

1x0.7x0.5cm. Entire specimen submitted in cassette F.

Specimen VII labelled "Final medial mucosal margin (septum)", consists of grey white tissue bit measuring

1.6x0.5x0.2cm. Entire specimen submitted in cassette G.

Specimen VIII labelled "final lateral soft tissue margin (subcutaneous)", consists of tiny grey brown tissue bit

measuring 0.8x0.6x0.4cm. Entire specimen submitted in cassette H

Specimen IX labelled "Final superior mucosal margin infra orbital", consisrts of tiny grey brown tissue bit

measuring 0.7x0.4x0.3cm. Entire specimen submitted in cassette J.

Specimen X labelled "Level IB right ", consists of nodular tissue bit measuring 5x3.5x2cm. 2 lymph nodes

identified one measuring 0.9cm in greatest dimension, other measuring 0.5cm in greatest dimension. Attached

salivary gland identified. Representative sections are submitted in cassettes K1 to K3.

Specimen XI labelled "Right level IIA", consists of nodular tissue bit measuring 4.5x2.5x2cm. 6 lymph nodes

identified, largest measuring 1.5cm in greatest dimension. Smallest measuring 0.7cm in greatest dimension.

Representative sections are submitted in cassettes L1 to L5.

Specimen XII labelled "Right level II B" consists of nodular tissue bit measuring 2.5x1.1x0.3cm. Entire

specimen submitted in cassette M

Specimen XIII labelled "Right level III", consists of multiple nodular tissue bit measuring 4x3x1.2cm. 6 lymph

nodes identified, largest measuring 1.8cm in greatest dimension. Smallest measuring 0.4cm in greatest

dimension. Entire specimen submitted in cassettes N1 to N8.

Specimen XIV labelled "Right level IV", consists of multiple fibrofatty tissue measuring 4x2.5x1.5cm. 5 lymph

nodes identified, largest measuring 1.5cm in greatest dimension. Smallest measuring 0.2cm in greatest

dimension. Representative sections are submitted in cassettes P1 & P2.

**Microscopic Description :**

Sections from buccal mucosa shows an ulcerative lesion composed of dysplastic squamous cells in lobules,

sheets, interlacing cords and anastomosing trabeculae. Focal keratin pearls noted. Interface shows patchy

sprinkling of lymphocytes and plasma cells. Focal PNI noted.

**Impression :**

WLE left buccal mucosa + left total maxillectomy+ left nidusectomy + right SND:

- Moderately differentiated squamous cell carcinoma recurrence in a known case

- Tumour measures 6.5x5x5.5cm.

- Tumour is involving the retromolar trigone and is extending externally to the overlying skin and soft tissue

,eroding the floor of maxillary sinus and also involving its anterolateral wall.

- Pterygoid plate region - Free of tumour

- WPOI - Pattern 4 (score 1+)

- PNI -Score 1+

- LHR - Score 1+

Risk - Intermediate

Bony invasion -Seen

Margins -

Tumour is abutting the anterior mucosal margin, 1cm from posterior mucosal margin and 0.6cm from posterior

soft tissue margin.

Skin margins are free of tumour

Bony margins - free of tumor

Additional margins :

Superolateral bony margin, superior tissue, superomucosal margin, additional posterior mucosal margin,final

superior mucosal from ITF , medial mucosal and lateral soft tissue margins are free of tumour.

Lymph nodes :

Right level IB - 2 nodes and salivary gland - free of tumour

Right IIA - 7 nodes - free of tumour

Right II B - Single nodes - free of tumour

Right III - 9 nodes - free of tumour

Right IV - 5 nodes - free of tumour

Stage rT4N0

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| **Date of Admission :**19/04/2017 | **Date of Procedure :**20/04/2017 |

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| **Date of Discharge :**08/05/2017 |

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

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| **PROCEDURE DONE :** |
| WLE + Left segmental mandibulectomy + Lt upper alveolectomy + Right SND + Left ALT flap + Tracheostomy under GA on 20.4.2017 Debridment and PMMC flap reconstruction under GA on 21/4/17 |

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| **HISTORY :** |
| 48 yr old male patient,business man is a k/c/o Ca alveolus - Left side , s/p:WLE + Segmental mandibulectomy +Left SND(1 to 4) + Free fibula flap in 2014 and adjuvant ChemoRT , stage and details not known now presented with an ulceroproliferative lesion in the buccal mucosa on left side - since 2 to 3 months h/o pain present S+(-); C++(- since 3 yrs); A(-) comorbidities:DM/HTN on drugs - controlled weight loss:yes (up to 5 kg in last 4 months) was biopsied at the treated hospital - MDSCC came here for further management |

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| **PERSONAL HISTORY :** |
| DM x 4yrs on glibenclamide forte HTN x 4yrs on cilacar No h/o, CAD,CVA,DLP, Asthma, seizures, thyroid disorder, TB No recent history of fever or cough Normal bowel and bladder habit Good effort tolerance |

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| **CLINICAL EXAMINATION :** |
| On Examination: left sided Ulcerative lesion in the left buccal mucosal and upper GB sulcus with involvement of labial mucosa of appr size - 3 x 4 cm the corresponding area is indurated and tender commissure is involved larynx and vallecula and tongue free of the lesion the corresponding area of the cheek also shows an indurated lesion with imminent ulceration of appr size 2 x 1 cm neck - left level 2 node palpated rest of examination - NAD |

**INVESTIGATIONS :**

**Haemogram:**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date:** | **Hb: g/dl** | **PCV: %** | **PLT: ku/ml** | **TC: ku/ml** | **DC: N %** | **L: %** | **E: %** | **ESR: mm/1st hr** |
| 19/04/2017 | 13.3 | 40.7 | 435 | 8.77 | 72.3 | 20.5 | 3.8 | - |
| 21/04/2017 | 8.7 | 26.1 | 279 | 8.32 | 90.5 | 7.1 | 0.0 | - |
| 22/04/2017 | 8.2 | 24.7 | 237 | 6.91 | 90.9 | 7.8 | 0.0 | - |

**Liver Function Test:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date:** | **T. Bilirubin: mg/dl** | **D. Bilirubin: mg/dl** | **SGOT: IU/L** | **SGPT: IU/L** | **ALP: IU/L** | **T. Protein: gms/dl** | **S. Alb: g/dl** | **S. Glob: g/dl** |
| 19/04/2017 | 0.7 | 0.14 | 15.8 | 12.7 | 80.9 | 7.27 | 4.0 | 3.3 |

**Renal Function Test and Serum Electrolytes:**

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| --- | --- | --- | --- | --- |
| **Date:** | **Urea: mg/dl** | **Creatinine: mg/dl** | **Na+: mEq/L** | **K+: mEq/L** |
| 19/04/2017 | 20.2 | 1.17 | 137.3 | 3.8 |
| 20/04/2017 | - | - | 137.3 | 4.0 |
| 21/04/2017 | 29.0 | 0.98 | 134.6 | 4.2 |
| 01/05/2017 | - | - | 128.2 | 4.3 |

Date: 22/04/2017

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| RBC-COUNT-Blood : 2.84 M/uL | MCV-Blood : 87.0 fL |

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| MCH-Blood : 28.9 pg | MCHC-Blood : 33.2 g/dl |

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| --- | --- |
| RDW-Blood : 15.5 % | MPV-Blood : 10.0 fL |

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| MONO -Blood : 1.2 % | BASO-Blood : 0.1 % |

Date: 21/04/2017

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| RBC-COUNT-Blood : 3.03 M/uL | MCV-Blood : 86.1 fL |

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| MCH-Blood : 28.7 pg | MCHC-Blood : 33.3 g/dl |

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| --- | --- |
| RDW-Blood : 15.5 % | MPV-Blood : 10.2 fL |

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| MONO -Blood : 2.3 % | BASO-Blood : 0.1 % |

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| Mins hs Trop T : 0.035 ng/ml | Compatibility test; cross match complete (3 tests) : Compatible |

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| hs Troponin I : 0.029 ng/ml | PT[Prothrombin Time with INR]-Plasma : 15.6/14.60/1.08 sec |

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| --- | --- |
| APTT[Activated Partial Thrombo-Plasma : 30.9/32.2 s | RBC-COUNT-Blood : 3.23 M/uL |

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| --- | --- |
| MCV-Blood : 85.1 fL | MCH-Blood : 29.1 pg |

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| MCHC-Blood : 34.2 g/dl | RDW-Blood : 15.5 % |

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| --- | --- |
| MPV-Blood : 9.9 fL | MONO -Blood : 1.3 % |

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| BASO-Blood : 0.1 % |  |

Date: 20/04/2017

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| Glucose [F]-Plasma : 128.2 mg/dl |  |

Date: 19/04/2017

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| Compatibility test; cross match complete (3 tests) : Compatible | Blood typing; ABO and RhD : O Rh D Positive |

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| HBs Ag Test - Emergency Screen : 0.26 : Non reactive | Anti HCV - Emergency Screen : 0.09 : Non reactive |

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| HIV - Emergency Screen(P24 Ag and HIV 1 and 2 Ab) : 0.17 : Non reactive | Glucose [R]-Plasma : 138.7 mg/dl |

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| HB A1C[Glycated Hemoglobin]Whole Blood : 5.9 % | PT[Prothrombin Time with INR]-Plasma : 13.0/14.60/0.87 sec |

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| RBC-COUNT-Blood : 4.73 M/uL | MCV-Blood : 86.0 fL |

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| MCH-Blood : 28.1 pg | MCHC-Blood : 32.7 g/dl |

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| RDW-Blood : 15.3 % | MPV-Blood : 9.1 fL |

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| MONO -Blood : 3.1 % | BASO-Blood : 0.3 % |

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| MRI : irregular soft tissue thickening and enhancement along the superior border of the flap and erodes the alveolar border of left maxilla, adjacent hard palate ,extends posteriorly uptill the pterygoid plate,erodes the anterior and lateral wall of left maxillary sinus. Pooled secretions also noted in the sinus .Nasal cavity appear clear.Fibula along the inferior aspect of flap appear uninvolved. Lesion infiltrates the overlying skin and subcutaneous fat anteriorly , involves the left lateral aspect of upper lip ,nasolabial groove and extends anterolaterally to the buccal pad of fat. Masticator space appear fee.Orbit appear normal. Base of skull appear normal.No intracranial extension. Larynx and pharynx appear clear. Few suspicious nodes are seen in right level Ib & II. Agreed Plan of management : |

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| **OPERATIVE FINDINGS :** |
| WLE + Left segmental mandibulectomy + Lt upper alveolectomy + Right SND + Left ALT flap + Tracheostomy under GA on 20.4.2017 Surgeons: Dr KK/DB/Adharsh/Narayana/Priyank Findings: ulcerative lesion in the left buccal mucosa and left labial mucosa and left gingivolabial sulcus and RMT area with corresponding cheek skin involvement Procedure: Under GA, with nasotracheal intubation , markings done for incision for WLE on the cheek skin with the left commisure and part of upper lip and a separate midline lip split incision meeting the transverse skin crease incision in the neck(previous scar). Sub- platysmal flaps raised and supramasseter flap raised on the skin excluding the involved cheek part. Zygoma lower border delineated after cutting the parotid duct. Masseter cut from the lower border of zygomatic arch. Sigmoid notch and coronoid process identified and temporalis attachment cut from the coronoid process. Anterior part of previously reconstructed mandible(Fibula flap) delineated. Anterior cut made preserving the anterior arch. The previous plate was removed except a screw which was very rigidly osseo integrated.The posterior cut was taken through the sigmoid notch on to the condyle. WLE incision of the mucosal lesion done internally and left upper alveolectomy was done along with the upper lip. The rest of the soft tissue attachment which included the MP and LP muscle was cut and the specimen delivered intoto and oriented with stitches and sent for HPE. Right SND (1 to 4) was done. Left ALT flap was harvested and anastomosis was done to left superior thyroid artery and EJV. Flap inset was done and wound closed in layers.Donor site closed primarily . Tracheostomy done and Post procedure uneventful. Debridement and PMMC flap reconstruction under GA on 21/4/17 by Dr SI/KK/DB/Adharsh/Narayana Findings: ALT flap artery thrombosed. Small bleeder noted on the surface of the right IJV, repaired with 6-0 proline. ALT flap taken down and discarded. Left PMMC flap harvested with an oval paddle roughly 8x8 cm. Flap inset was performed, lower end of the flap inset after anchoring dermis to the floor of the orbit and lower end anchored to the mandible with 3-0 proline. Inner aspect of the paddle inset with the pharyngeal defect and outer skin sutured to the external defect. Nose and lip raw surface sutured to de-epitheliased PMMC surface. PMMC site closed with skin graft and 14F suction drain. |

**Tumour Board Discussion**

**Relevant clinical details :**

48 yr old male patient : business man

k/c/o Ca alveolus - Left side , s/p:WLE + Segmental mandibulectomy +Left SND(1 to 4) + Free fibula flap in

2014

and adjuvant ChemoRT , stage and details not known

now presented with an ulceroproliferative lesion in the buccal mucosa on left side - since 2 to 3 months

h/o pain present

S+(-); C++(- since 3 yrs); A(-)

comorbidities:DM/HTN on drugs - controlled

weight loss:yes (upto 5 kg in last 4 months)

was biopsied at the treated hospital - MDSCC

came here for further management

l/e:

left sided Ulcerative lesion in the left buccal mucosal and upper GB sulcus with involvement of labial mucosa of

appr size - 3 x 4 cm

the corresponding area is indurated and tender

commissure is involved

larynx and vallecula and tongue free of the lesion

the corresponding area of the cheek also shows an indurated lesion with imminent ulceration of appr size 2 x 1

cm

neck - left level 2 node palpated

rest of examination - NAD

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

MDSCC

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

PET scan done : increased FDG uptake in the lesion in upper GBS , infiltrating hard palate, maxilla , anterior and

lateral wall of sinus and skin also

no FDG avid neck nodes

no distant mets

MRI :

irregular soft tissue thickening and enhancement along the superior border of the flap and erodes the alveolar

border of left maxilla, adjacent hard palate ,extends posteriorly uptill the pterygoid plate,erodes the anterior and

lateral wall of left maxillary sinus. Pooled secretions also noted in the sinus .Nasal cavity appear clear.Fibula

along the inferior aspect of flap appear uninvolved.

Lesion infiltrates the overlying skin and subcutaneous fat anteriorly , involves the left lateral aspect of upper

lip ,nasolabial groove and extends anterolaterally to the buccal pad of fat.

Masticator space appear fee.Orbit appear normal.

Base of skull appear normal.No intracranial extension.

Larynx and pharynx appear clear.

Few suspicious nodes are seen in right level Ib & II.

**Agreed Plan of management :**

Salvage surgery:

WLE + Left total maxillectomy + Left Nidusectomy + Right SND(1 to 4)+ STF reconstruction (ALT with facia

lata for oral commissure )

**Operative notes - resection + reconstruction**

**Date : 25/04/2017**

**ProgressNotes :**

WLE + Left segmental mandibulectomy + Lt upper alveolectomy + Right SND + Left ALT flap +

Tracheostomy under GA on 20.4.2017

Surgeons: Dr KK/DB/Adharsh/Narayana/Priyank

Findings: ulcerative lesion in the left buccal mucosa and left labial mucosa and left gingivolabial sulcus and

RMT area with corresponding cheek skin involvement

Procedure:

Under GA, with nasotracheal intubation , markings done for incision for WLE on the cheek skin with the left

commisure and part of upper lip and a separate midline lip split incision meeting the transverse skin crease

incision in the neck(previous scar). Sub- platysmal flaps raised and supramasseter flap raised on the skin

excluding the involved cheek part. Zygoma lower border delineated after cutting the parotid duct. Masseter cut

from the lower border of zygomatic arch. Sigmoid notch and coronoid process identified and temporalis

attachment cut from the coronoid process. Anterior part of previously reconstructed mandible(Fibula flap)

delineated. Anterior cut made preserving the anterior arch. The previous plate was removed except a screw

which was very rigidly osseo integrated.The posterior cut was taken through the sigmoid notch on to the

condyle. WLE incision of the mucosal lesion done internally and left upper alveolectomy was done along

with the upper lip. The rest of the soft tissue attachment which included the MP and LP muscle was cut and

the specimen delivered intoto and oriented with stitches and sent for HPE. Right SND (1 to 4) was done. Left

ALT flap was harvested and anastomosis was done to left superior thyroid artery and EJV. Flap inset was done

and wound closed in layers.Donor site closed primarily . Tracheostomy done and Post procedure uneventful.

**Progress Notes**

**Date : 29/04/2017**

**ProgressNotes :**

WLE + Left segmental mandibulectomy + Lt upper alveolectomy + Right SND + Left ALT flap +

Tracheostomy under GA on 20.4.2017

on RT feeds

on oral trial with posterior placement jet feeding: normal swallow

no signs of penetration/aspiration

plan; start on oral feeds semisolid diet with posterior placement