**Impression :**

**MDCT NECK â?? CONTRAST**

Ill defined mildly enhancing soft tissue lesion in the left half of tongue (more towards the lateral aspect) â?? upto the posterior third.

No erosion of adjacent mandibular cortex.

Small subcentimetric left level III, V, right level III; largest measuring 7 x5 mm.

No extension of lesion across the midline into the right half of tongue.

Thyroid and cricoid cartilages, hyoid bone are normal.

Larynx and hypopharynx are normal.

Thyroid gland shows homogenous enhancement. No focal lesion.

**IMPRESSION**

***Known case of Ca Tongue*.**

      **Ill defined enhancing soft tissue lesion involving the left half of tongue.**

      **No bone erosion.**

      **Subcentimetric bilateral cervical lymphnodes.**

**CT CHEST - CONTRAST**

Multiple subcentimetric prevascular, lower paratracheal and aortopulmonary window lymphnodes, largest measuring 7 x 10 mm.

Hila are normal.

Lung parenchyma appears normal on both sides. No focal lesion.

Mediastinal vascular structures are normal.

Degenerative changes in the thoracic vertebra.

**IMPRESSION**

        **No focal lung parenchymal lesion.**

        **Multiple subcentimetric mediastinal lymphnodes.**

**SURGICAL PATHOLOGY REPORT**

**Age :** 65

**Date of sample collection :** 24/01/2013

**Received on :** 24/01/2013

**Reported Date :** 29/01/2013

**Clinical Impression :**

Carcinoma left lateral tongue

**Gross Description :**

Received in formalin are 7 specimens. The I specimen labelled as "Tumor over left lateral tongue with left level

IB (single long stitch - Margin of mandible, double long stitch left tonsil)", consists of the same, tongue

measures 6.5x4.5x3cm, portion of mandible measures 3x0.6x0.5cm. Left level IB with adjacent soft tissue

measures 5x3.5x2cm. Deep surface is inked and specimen is serially sliced. Cut section shows a irregular grey

white lesion involving the tongue measures 4.4x3.3x3.2cm. Depth of invasion is 3cm. The tumor is situated

2.5cm from anterior mucosal margin, 2.8cm from posterior mucosal margin, 2cm from medial mucosa margin,

1.3cm from lateral mucosal margin. Free deep soft tissue is 3mm. Mandible appears free of tumor.

Representative sections are submitted as follows:

A1 - Lateral mucosal margin

A2 - Medial mucosal margin

A3 - Posterior mucosal margin

A4 - Tumor with inked deep margin

A5 - Tumor with medial tongue mucosa

A6 - Tumor with deep margin

A7 - Tumor with lateral mucosa and soft tissue

A8 - From tonsil

A9 - From salivary gland tissue

A10 - 3 lymphnodes

A11 - 5 lymphnodes

A12 - 5 lymphnodes

AFB1 and AFB2 - Mandible

Specimen II labelled as "left level Ia", consists of a fibrofatty tissue measures 4x2.5x0.5cm. 2 lymphnodes

identified. Largest measures 0.5cm. Representative sections are submitted in cassette B.

Specimen III labelled as "Left level IIa", consists of multiple fibrofatty tissue in aggregate measures

4.5x4x1.8cm. 17 lymphnodes identified. Largest measures 1.2cm in greater dimension. Representative sections

are submitted in C1 - C5 cassettes.

Specimen IV labelled as "Level IIb", consists of a fibrofatty tissue measures 2.8x2.5x1cm. 8 lymphnodes

identified. Largest measures 0.6cm in greater dimension. Representative sections are submitted in D1 - D2

cassettes.

Specimen V labelled as "Level III", consists of a fibrofatty tissue measures 3x2x0.7cm. 15 lymphnodes

identified largest measures 1.3cm in greater dimension. Representative sections are submitted in E1 - E4

cassettes.

Specimen VI labelled as "Prefacial node", consists of a single nodular fibrofatty tissue measures 1.2x0.6x0.5cm.

Entire specimen submitted in cassette F.

Specimen VII labelled as "Level IV", consists of multiple fibrofatty tissue in aggregate measures 3.5x2.5x1cm. 8

lymphnodes identified, largest measures 0.5cm in greater dimension. Representative sections are submitted in G1

- G2 cassettes.

(Dr.Surya/sh)

**Microscopic Description :**

A) Tumor with left lateral border of tongue with left level Ib + shaved mandible:-

- Moderately differentiated squamous cell carcinoma

- Tumor size 4.4x3.3x3cm

- Depth of invasion 3cm

- Lymphovascular invasion and perineural invasion seen

- Tumor has cohesive and infiltrative borders with mild chronic inflammatory reaction around

- Tumor is seen infiltrating the intrinsic muscles of tongue

- All mucosal margins are free and well away

- Deep free margin is 2.5mm

- Free medial soft tissue margin is 5mm

- 8 reactive nodes

- Salivary gland show features of mild chronic sialadenitis.

- Bone is free of tumor.

B) Left level Ia - Single reactive lymphnode.

C) Left level IIa - 1/13 lymphnodes show metastasis. No perinodal spread seen.

D) Left level IIb - 6 reactive nodes.

E) Left level III - 12 reactive nodes.

F) Left prefacial node - 2 reactive nodes.

G) Level IV - 9 reactive nodes

**Diagnosis :**

Tumor with left lateral border of tongue with left level Ib + shaved mandible + selective lymph node dissection:-

- Moderately differentiated squamous cell carcinoma

- Tumor size 4.4x3.3x3cm

- Depth of invasion 3cm

- Lymphovascular invasion and perineural invasion seen

- All mucosal margins are free and well away

- Deep free margin is 2.5mm

- Free medial soft tissue margin is 5mm

-1/51 lymphnodes show metastasis. No perinodal spread seen.

- Bone is free of tumor infiltration

pT3N1Mx

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| **Date of Admission :**23/01/2013 | **Date of Procedure :**24/01/2013 |

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| **Date of Discharge :**04/02/2013 |

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

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| **DIAGNOSIS :** |
| Carcinoma left lateral border of tongue |

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| **PROCEDURE DONE :** |
| Left Subtotal Glossectomy + Access Mandibulotomy + Left Neck Dissection (levels I - IV) + ALT Free Flap + Tracheostomy on 24.01.2013 under GA |

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| **HISTORY :** |
| 65 year old male Mr. V. Gopinanthan presented to Head and Neck OPD with complaints of painfull mass in left lateral tongue since one month duration. Which was insidious in onset and gradually progressed to current size. Associated with severe pain while speaking and chewing food. Had a biopsy outisde (22.11.2012) showed infiltrating Moderately differentiate squamous cell carcinoma. Came here fo further management. |

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| **PAST HISTORY :** |
| H/o shortness fo breath and on inhalers for 10 years, |

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| **CLINICAL EXAMINATION :** |
| O/E: Oral Cavity - edentelous There is about 3X2cm induration arising from left lateral border tongue 3 cm from tip, extending posteriorly to left Anterior pillar. Extends inferiorly to Left floor of mouth. Neck - No nodes palpable. Scopy: normal larynx. |

**INVESTIGATIONS :**

**Haemogram:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date:** | **Hb: g/dl** | **PCV: %** | **PLT: ku/ml** | **TC: ku/ml** | **DC: N %** | **L: %** | **E: %** | **ESR: mm/1st hr** |
| 25/01/2013 | 10.4 | 31.7 | 164.0 | 15.3 | 84.7 | 8.21 | 0.04 | - |
| 27/01/2013 | 7.78 | 23.1 | 181.0 | 12.7 | 77.8 | 15.3 | 1.99 | - |
| 28/01/2013 | 11.3 | 33.7 | 173.0 | 10.1 | 67.0 | 17.0 | 5.27 | - |
| 30/01/2013 | 11.6 | 35.9 | 164.0 | 10.9 | 59.8 | 18.2 | 2.15 | - |
| 31/01/2013 | 11.8 | 35.9 | 204.0 | 13.0 | 64.8 | 17.0 | 2.49 | - |
| 02/02/2013 | 12.2 | 36.2 | 268.0 | 19.0 | 73.3 | 15.6 | 3.73 | - |

**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** |
| 30/01/2013 | 0.72 | 0.16 | 34.0 | 19.2 | 49.6 | 6.26 | 2.93 | 3.3 |

**Renal Function Test and Serum Electrolytes:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date:** | **Urea: mg/dl** | **Creatinine: mg/dl** | **Na+: mEq/L** | **K+: mEq/L** |
| 24/01/2013 | - | - | 136.1 | 3.7 |
| 25/01/2013 | - | - | 135.4 | 5.1 |
| 27/01/2013 | - | - | 129.2 | 3.3 |
| 28/01/2013 | - | - | 131.7 | 3.4 |
| 30/01/2013 | 22.7 | 0.72 | 128.9 | 3.2 |
| 02/02/2013 | 18.0 | 0.84 | 131.6 | 4.1 |

Date: 02/02/2013

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| RBC-COUNT-Blood : 4.24 M/uL | MCV-Blood : 85.5 fL |

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| MCH-Blood : 28.7 pg | MCHC-Blood : 33.6 g/dl |

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| --- | --- |
| RDW-Blood : 17.5 % | MPV-Blood : 7.27 fL |

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| --- | --- |
| MONO -Blood : 6.83 % | BASO-Blood : 0.568 % |

Date: 31/01/2013

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| --- | --- |
| RBC-COUNT-Blood : 4.15 M/uL | MCV-Blood : 86.4 fL |

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| --- | --- |
| MCH-Blood : 28.4 pg | MCHC-Blood : 32.9 g/dl |

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| --- | --- |
| RDW-Blood : 19.6 % | MPV-Blood : 7.38 fL |

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| --- | --- |
| MONO -Blood : 15.1 % | BASO-Blood : 0.668 % |

Date: 30/01/2013

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| --- | --- |
| RBC-COUNT-Blood : 4.13 M/uL | MCV-Blood : 86.9 fL |

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| MCH-Blood : 28.2 pg | MCHC-Blood : 32.5 g/dl |

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| --- | --- |
| RDW-Blood : 16.8 % | MPV-Blood : 7.11 fL |

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| MONO -Blood : 18.8 % | BASO-Blood : 1.06 % |

Date: 28/01/2013

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| --- | --- |
| RBC-COUNT-Blood : 4.01 M/uL | MCV-Blood : 84.0 fL |

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| MCH-Blood : 28.3 pg | MCHC-Blood : 33.7 g/dl |

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| --- | --- |
| RDW-Blood : 15.6 % | MPV-Blood : 6.91 fL |

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| MONO -Blood : 10.4 % | BASO-Blood : 0.42 % |

Date: 27/01/2013

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| --- | --- |
| RBC-COUNT-Blood : 2.49 M/uL | MCV-Blood : 92.9 fL |

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| MCH-Blood : 31.2 pg | MCHC-Blood : 33.7 g/dl |

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| --- | --- |
| RDW-Blood : 14.6 % | MPV-Blood : 6.53 fL |

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| MONO -Blood : 4.6 % | BASO-Blood : 0.241 % |

Date: 25/01/2013

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| Compatibility test; cross match complete (3 tests) : Compatible | RBC-COUNT-Blood : 3.39 M/uL |

|  |  |
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| MCV-Blood : 93.5 fL | MCH-Blood : 30.8 pg |

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| --- | --- |
| MCHC-Blood : 32.9 g/dl | RDW-Blood : 14.5 % |

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| MPV-Blood : 6.83 fL | MONO -Blood : 6.41 % |

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| BASO-Blood : 0.65 % |  |

Date: 23/01/2013

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| Compatibility test; cross match complete (3 tests) : Compatible |  |

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| MDCT NECK CONTRAST Date : 31.12.2012 Ill defined mildly enhancing soft tissue lesion in the left half of tongue (more towards the lateral aspect) â?? upto the posterior third. No erosion of adjacent mandibular cortex. Small subcentimetric left level III, V, right level III; largest measuring 7 x5 mm. No extension of lesion across the midline into the right half of tongue. Thyroid and cricoid cartilages, hyoid bone are normal. Larynx and hypopharynx are normal. Thyroid gland shows homogenous enhancement. No focal lesion IMPRESSION Known case of Ca Tongue. Ill defined enhancing soft tissue lesion involving the left half of tongue. No bone erosion. Subcentimetric bilateral cervical lymphnodes. |

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| **COURSE IN THE HOSPITAL AND DISCUSSION :** |
| The patient was admitted and after all preliminary investigations and evaluation he was taken up for surgery. He underwent Left Subtotal Glossectomy + Access Mandibulotomy + Left Neck Dissection (levels I - IV) + ALT Free Flap + Tracheostomy on 24.01.2013 under GA. Postoperatively he had chest infection, Pulmonology consultation was sought and started on IV antibiotis (Inj. Magnex 2 gm Iv 1-0-1). Rest of the postoperative period was uneventful. Tracheostomy tube was deacnnulated on the fifth postoperative period. On the eight postoperative day he was started orally, but had small orocutaneous fistula-advised to continue Ryles tube feeding. Condition at discharge: Stable, afebrile, Ryles tube feeding, all sutures removed |

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| **OPERATIVE FINDINGS :** |
| Surgery: Left Subtotal Glossectomy + Access Mandibulotomy + Left Neck Dissection (levels I - IV) + ALT Free Flap + Tracheostomy under GA on 24.01.2013 Procedure: Patient in supine position, under aseptic precautions with head turned towards right.Transvers neck incision with Midline Lip Split made, subplatysmal flaps raised. Access Mandibulotomy performed with pre plating, Subtotal Glossectomy performed which included the Left lateral tongue with the tumour and a clear margin around the tumour. Submental fibrofatty tissue dissected and displaced inferiorly. Facial artery and vein ligated and cut. Submandibular duct divided and ligated. Submandibualr fibrofatty tissue along with the submandibular gland dissected out. SCM dissected on its medial border to expose the Spinal accessory nerve, internal jugular vein and the carotid artery. Dissection continued inferiorly till omohyoid cross over separating the specimen from the IJV, carotid sheath, vagus and hypoglossal while proceeding medially. Specimen completely separted from the IJV and delivered. Hemostasis confirmed. Drain placed in situ.Anterolateral Thigh flap harvested from the left thigh, and microvascular anastamosis made with Left Facial Artery and Vein. Flap insetted into the defect and sutured. Tracheostomy performed. |

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| **DIET RECOMMENDATIONS :** |
| RT FEEDS (2.5 litres/ day) |

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| **DISCHARGE MEDICATION :** |
| Tab. Septran DS 1-1-1 x 7 days Tab. Pan 20 mg 1-0-1 x 7 days Tab. Mucolite 30 mg 1-1-1 x 7 days Tab. Dolo 650 mg SOS (3) for pain Hexidine mouth gargles fourth hourly |

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| **PLAN ON DISCHARGE :** |
| Radiation and Dental Consultation on the day of follow up |

**TUMOUR BOARD DISCUSSION**

**DOA :** 02/01/2013 **DOS :** 02/01/2013 **DOD :** 02/01/2013

**Date of tumor board discussion :** 02/01/2013

**Agreed Plan of management :**

02.01.2013: WLE + ND + Soft tissue flap +/- Adj RT

**Progress Notes**

**Date : 31/12/2012**

**ProgressNotes :**

Left Lateral Tongue Carcinoma, No Node.

Patient has had CT today.

advised PAC, Cardiology review, Pain & Palliative Care.

**Progress Notes**

**Date : 29/05/2013**

**ProgressNotes :**

Case of Ca Tongue.

Post surgery.Tumor with left lateral border of tongue with left level Ib + shaved mandible + selective lymph

node dissection.

HPR:

- Moderately differentiated squamous cell carcinoma

- Tumor size 4.4 x 3.3 x 3 cm

- Depth of invasion 3 cm

-1/51 lymphnodes show metastasis. No perinodal spread seen.

RT completed on: 20.04.2013

Priamary and Neck - No evidence of Disease.

Pt has diificulty in swallowing liquids

Plan for ryles tube inseretion under GA

**Speciality :** Radiation Oncology

**D/O Commencement of RT** 12/03/2013 **D/O Completion of RT** 20/04/2013

**FINAL DIAGNOSIS, STAGE AND HISTOLOGY**

Carcinoma Tongue-post operative

Stage: pT3 N1 M0

Completed Concurrent external beam Radiation therapy-IMRT

**CLINICAL HISTORY AND PHYSICAL FINDINGS**

65 year old male Mr. V. Gopinanthan presented to Head and Neck OP with complaints of pain full mass in left

lateral tongue since one month, which was insidious in onset and gradually progressed to current size. This was

associated with severe pain while speaking and chewing food. He was advised a biopsy, which was done from

out side on 22.11.2012, and was reported as showing "Infiltrating Moderately differentiated squamous cell

carcinoma" Mr Gopinath had come to AIMS for further management. Here he was seen by the Department of

Head and neck Surgery, and underwent Left Subtotal Glossectomy + Access Mandibulotomy + Left Neck

Dissection (levels I - IV) + ALT Free Flap + Tracheostomy on 24.01.2013. Based on the pathology report

(pT3N1Mx), his case was discussed in Head and Neck tumour board and planned for concurrent

chemo-radiation. Plan: 6600 cGy in 30 fractions.

**INVESTIGATIONS :**

**HISTOPATHOLOGY REPORTS**

Histopathology: 29-01-2013: Tumor with left lateral border of tongue with left level Ib + shaved mandible +

selective lymph node dissection:-

Moderately differentiated squamous cell carcinoma

Tumor size 4.4 x 3.3 x 3 cm

Depth of invasion 3 cm

Lympho-vascular invasion and perineural invasion seen

All mucosal margins are free and well away

Deep free margin is 2.5mm

Free medial soft tissue margin is 5mm

1/51 lymph nodes show metastasis. No peri-nodal spread seen.

Bone scan awaited (Grossly appears free).

pT3 N1 Mx

Treatment Given:

**SURGERY DETAILS :**

Left Subtotal Glossectomy + Access Mandibulotomy + Left Neck Dissection (levels I - IV) + ALT Free Flap +

Tracheostomy on 24.01.2013

**RADIATION DETAILS :**

Intent: Curative

Technique: IMRT

Cat scan simulation: 14.02.2013

Computerised Planning: 11.03.2013

Re-simulation: 12.03.2013

RT started on: 12.03.2013

RT completed on: 20.04.2013

Total dose: 6600 cGy in 30 fractions

**Primary Tumour And Drainage Area :**

Site: CTV 66 Gy(Tumour bed Surgical bed)

Portals: RPO 210, RPO 260, RAO 310, AP

Energy: 6 MV Photons

Dose: 6600 cGy in 30 fractions

Schedule: 220 cGy per fraction and 5 fractions per week

Dose prescribed to 100% isodose line

Site: CTV 60 Gy(Tumour 66Gy+Entire tongue+Level 2,3,5 B/L)

Portals: RPO 210, RPO 260, RAO 310,AP

Energy: 6 MV Photons

Dose: 6000 cGy in 30 fractions

Schedule: 200 cGy per fraction and 5 fractions per week

Dose prescribed to 100% isodose line

Site: CTV 54Gy(B/L Level 4,6)

Portals: RPO 210, RPO 260, RAO 310,AP

Energy: 6 MV Photons

Dose: 5400 cGy in 30 fractions

Schedule: 180 cGy per fraction and 5 fractions per week

Dose prescribed to 100% isodose line

**TREATMENT COURSE :**

65 year old man, diagnosed as a case of carcinoma tongue, pT3N1Mx, post left Subtotal

Glossectomy + Access Mandibulotomy + Left Neck Dissection (levels I - IV) + ALT Free Flap + Tracheostomy

on 24.01.2013, was treated with adjuvant radiation to a dose of 66 Gy in 30 fractions from 12.03.2013, and

completed the same without interruption on 20.04.2013. He had grade II / III skin and mucosal changes and this

was managed symptomatically.

**ADVICES AT DISCHARGE, MEDICATIONS AND FURTHER PLAN**

1. Review after 1 and 2 weeks in RT OPD.

2. Review after 4 - 6 weeks in HNS-RT Combined Follow Up Clinic for evaluation of Primary Disease, Neck

Nodes

3. Review every month in RT OPD for one year and then as advised.

Investigations:

1. CXR PA View, CBC, RFT and Liver Enzymes [SGOT, SGPT and Alkaline Phosphatase] 4- 6 weeks post RT

and then as advised by the Physician [CXR every 6 months].

2. TFT [T3, T4, TSH] every 6 months routinely to rule out post RT hypothyroidism.

Oral and Skin Care:

1. Mix a pinch of Soda Bicarbonate powder and one table spoon of common salt in a liter of water and use as

mouth wash every 4 to 6 hours. Neem Leaf mouth wash as advised.

2. Skin care: Avoid applying oil and washing with soap. Gentle splashing of water followed by mopping with

towel. Normal daily bath can be resumed after 3 weeks of completion of RT. Apply ointments or creams only as

per Doctors' advice.

3. Silver Sulfadiazine Cream for Local Application TID for wounds [for healing].

Specific:

1. High calorie feeds: 3500 calorie and 120 gm protein with mineral and vitamin supplementation in 2.5 liters of

liquid diet. Orally as tolerated.