Case Presentation

Topic: Difficult to Ventilate
Difficult to Intubate

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CASE SCENARIO : 1

- A 65 years old female patient, resident of Bhongir came with C/o

  1. Swelling over the Right cheek since 1month
  2. Restricted mouth opening since 1 month

- The swelling gradually increased in size since 1 month and was associated with tenderness on mouth opening along with restriction, blisters over the swelling since 15days.
- K/c/o Hypertension sine 5 yrs on regular medication Tab. Atenolol 50mg+ Tab. Amlodipine 5mg once daily.

- She was a **Chronic TOBACCO and BEETLE NUT** chewer sine 20years.
- **General Examination:**

Patient is conscious, cooperative and coherent

Heart rate:84 bpm

Blood pressure : 120/80mm Hg

CVS : S1 S2 heard no murmurs

RS: Bilateral air entry +, no added sounds

Airway Assessment:

1. **Nose**: B/L nares patent with deviation of nasal septum to the left.

2.Oral cavity: a)Unhygienic with ulceration in the right buccal mucosa

b)Mouth opening: 1 ½ finger breath.

3.Teeth : Bucking +

Inter incisor distance = 3 cms

4. Palate : Normal

5. Jaw protusion: Class C (lower incisors cannot be bought edge to edge with upper incisors).

6.Temporo mandibular joint movement: Restricted

7.Sub mental space :

a) Hyomental distance: grade 3 = <4cms

b) Thyromental distance: : 2 and half fingers

c) Stenomental distance :10 cms

8. Modified Mallampati score: Grade 4

9. Neck: Short and Thick

Neck mobility : Normal

Ability to assume sniffing position: +

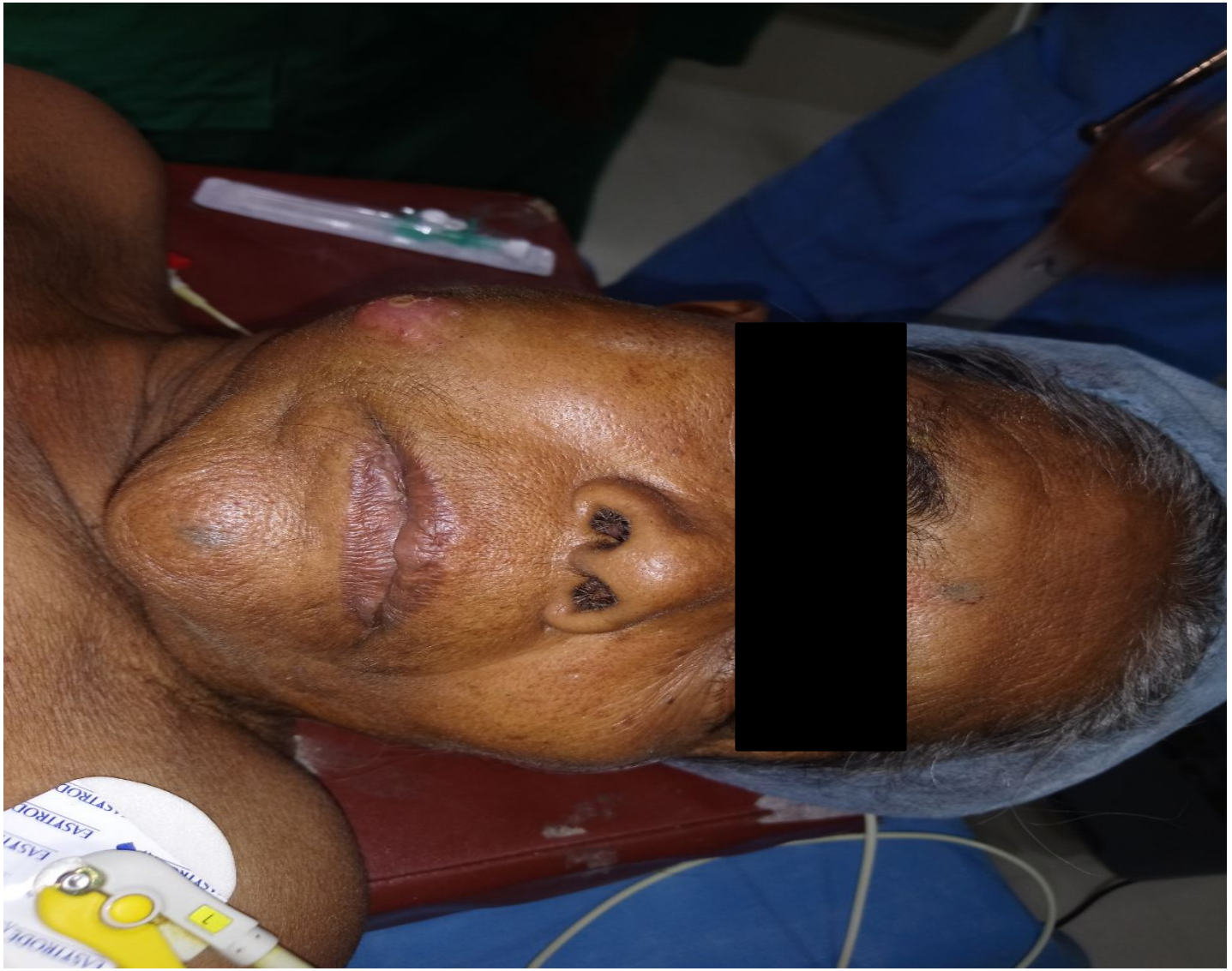


Image showing swelling in the right cheek

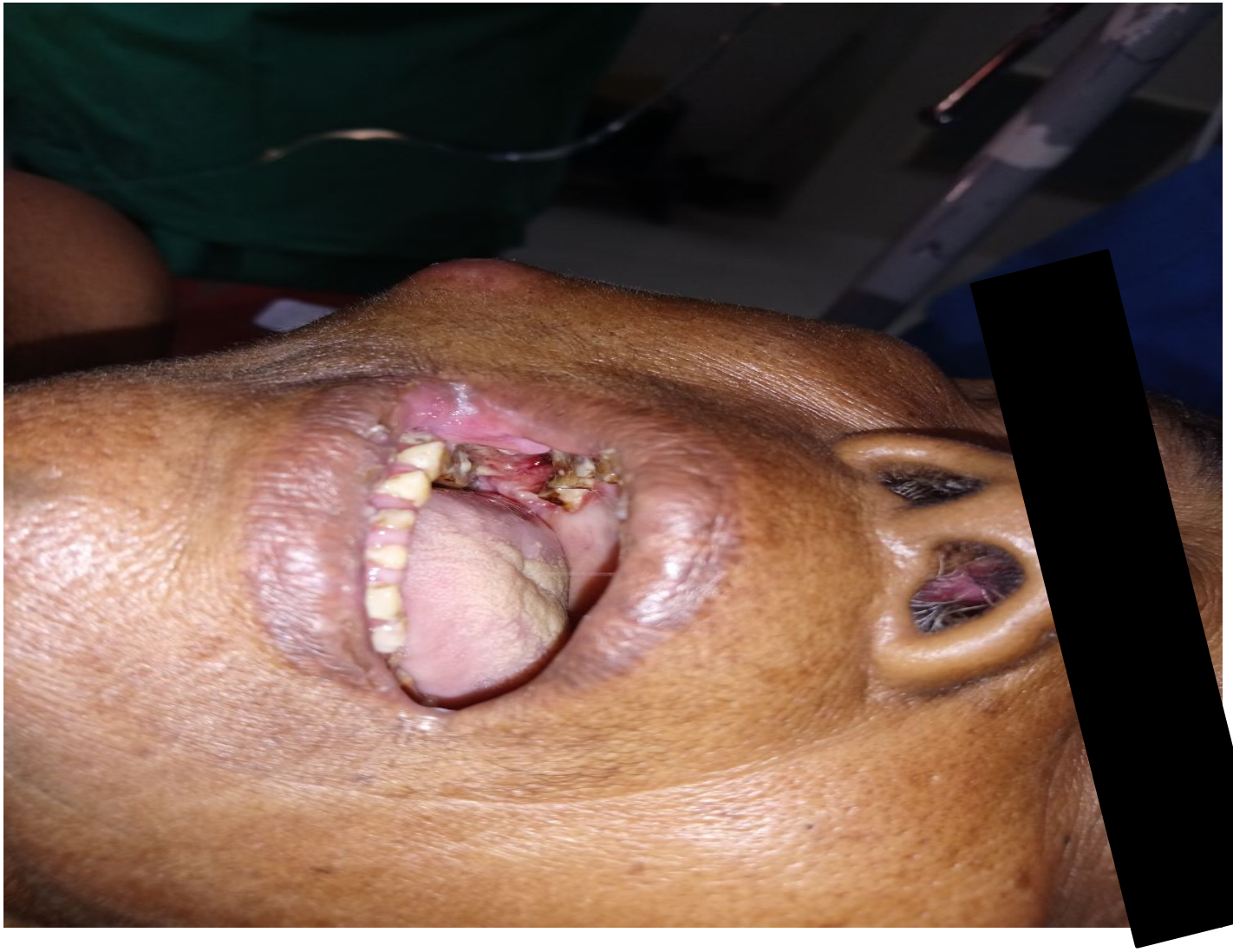


Image showing restricted mouth opening

Diagnosis: Right buccal mucosa carcinoma

Problems Anticipated:

1. Difficult mask ventilation.
2. Difficult oral intubation.
3. Difficult nasal intubation.

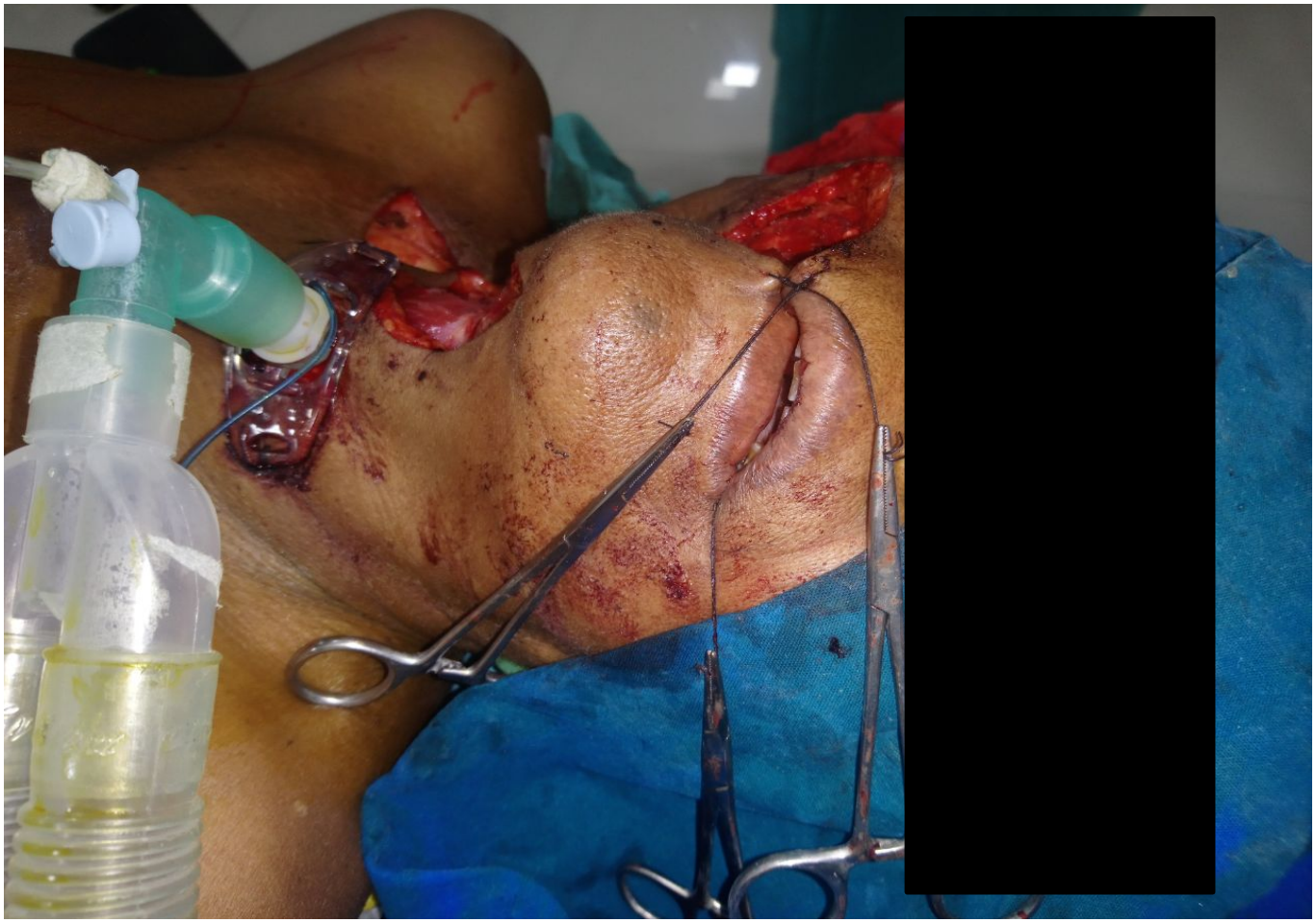
MANAGEMENT

- Premedication.
- Preoxygenation with 100% O2 for 5 min (due to leak in mask seal).
- With help of oro pharyngeal airway, Mask ventilation was done and patient was Induced.
- Chest rise was noted.
- Short acting muscle relaxant was given.

- Planned for Nasal Intubation.

- Due to obstruction and bleeding Nasal Intubation failed.
- Due to risk of bleeding and high rate of metastatic spread Oral Intubation was avoided.
- Planned for Open Tracheostomy with mask ventilation.
- 7mm Tracheostomy tube was introduced and chest rise was noted with Spo2 maintained at 100%.

Intra operative Tracheostomy



CASE SCENARIO : 2

- A 80 yr old morbid obese male patient, resident of Pochampally presented with c/o

1.Shortness of breath since 10 days

2.Change in voice since 5 days

- Shortness of breath was sudden in onset gradually progressed for grade 2 to grade 3 (NYHA) , more on lying down and relieved in propped up position
- Change in voice was sudden in onset and worsen gradually.
- No h/o chest pain, palpitation, fever or cough.

- ***K/c/o***

1. **Hypertension** since 6yrs on Tab. Amlodipine 50mg+Tab.Atenolol 5mg once daily.
2. **Diabetes Mellitus type 2 (denovo)** since 6 months on irregular medication.
3. H/o **Left Hemiparises** 1 year back.
4. h/o similar complaints of shortness of breath 6 months back.

- He was a Chronic Alcoholic since 30years.
- **General Examination:**

Patient is irritable, non cooperative and not coherent and was on CPAP; SpO2:50%

Heart rate:120 bpm

Blood pressure : 140/110mm Hg

CVS : S1 S2 heard, no murmurs

RS: Bilateral minimal air entry with wheeze

Airway Assessment:

1. Nose: B/L nares patent

2.Oral cavity: a)Unhygienic.

b)Mouth opening: 3 finger breath.

3.Teeth : Bucking :Not present

Inter incisor distance = 5 cms

4. Palate : Normal

5. Jaw protusion: Class B(lower incisors can be bought edge to edge with upper incisors).

6. Temporo mandibular joint movement:
Normal

7.Sub mental space :

a) Hyomental distance: Grade 3= < 4cms

b) Thyromental distance: < 2 and half fingers

c) Sternomental distance : < 10 cms

8. Modified Mallampati score: Grade 3

9. Neck: Short and Thick

Neck mobility : Restricted

Inability to assume sniffing position

ENT examination

Findings on Video laryngoscopy

Base of Tongue
Aryepiglottic fold
Epiglottis

= Normal

Pyriform sinus = No pooling of saliva

False cords = Bulky

True vocal cords = Fixed in Paramedian position.

VIDEO LARYNGOSCOPY IMAGE

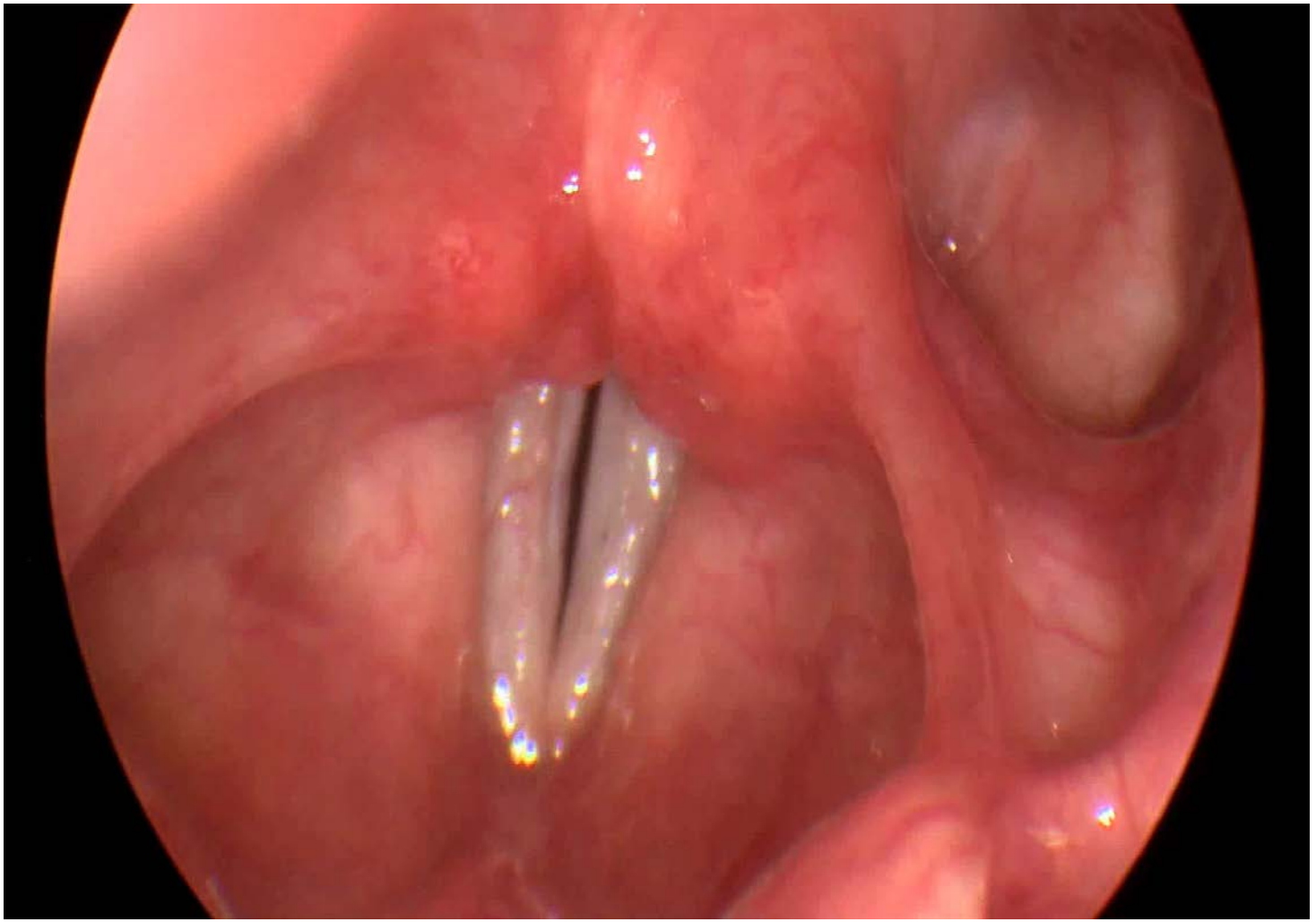


Image showing B/L vocal cords fixed in paramedian position

Diagnosis: 1.? Acute exacerbation of Asthma.

2.? Bilateral abductor palsy.

Problems Anticipated:

1. Difficult mask ventilation.
2. Difficult oral intubation.

MANAGEMENT

- Patient was kept in head up position 10-15 degrees with a pillows and Ramp position was maintained.
- Premedication was given.
- Patient was Sedated.
- With help of oro pharyngeal airway mask ventilation was attempted with 2 hands.
- Patient was able to be Ventilated, minimal chest rise was noted.
- Spo2 increased from 50-75% and continued mask ventilation until SPo2 >95%.

- Oral intubation was attempted after induction.
- Cormack Lehane classification direct laryngoscopy –grade 2 and 2 mm distance between the cords and fixed cords were present.
- Endo tracheal Tube no 6 and 5.5 failed to passed through the cords.
- Final attempt with Bougie also failed.
- Continued Mask ventilation.
- Planned for Tracheostomy.
- Confirmation of the tube was done with help of +ve ETCO2 graph in Capnography.

CASE SCENARIO : 3

- A 45 yr old female patient, resident of Katangur presented with c/o

1.Swelling over the left side of neck since 1 year.

2.Change in voice and shortness of breath Grade 2 (NYHA) since 15 days.

- No h/o chest pain, palpitation, weight gain or loss, no change in appetite

- **General Examination:**

  Patient is conscious, cooperative and coherent.

  Heart rate:84 bpm

  Blood pressure : 120/80mm Hg

  CVS : S1 S2 heard no murmurs

  RS: bilateral air entry +, no added sounds

Airway Assessment:

1. Nose: B/L Nares patent

2.Oral cavity: a. Hygienic.

b. Mouth opening: 2 ½ finger breath.

3.Teeth : Bucking :not present

Inter incisor distance = 5 cms

4. Palate : Normal

5. Jaw protusion: Class B(lower incisors can be bought edge to edge with upper incisors).

6.Temporo mandibular joint movement: Normal

7.Sub mental space :

a) Hyomental distance:< 2 fingers

b) Thyromental distance:< 3 fingers

c) Sternomental distance : < 9 cms

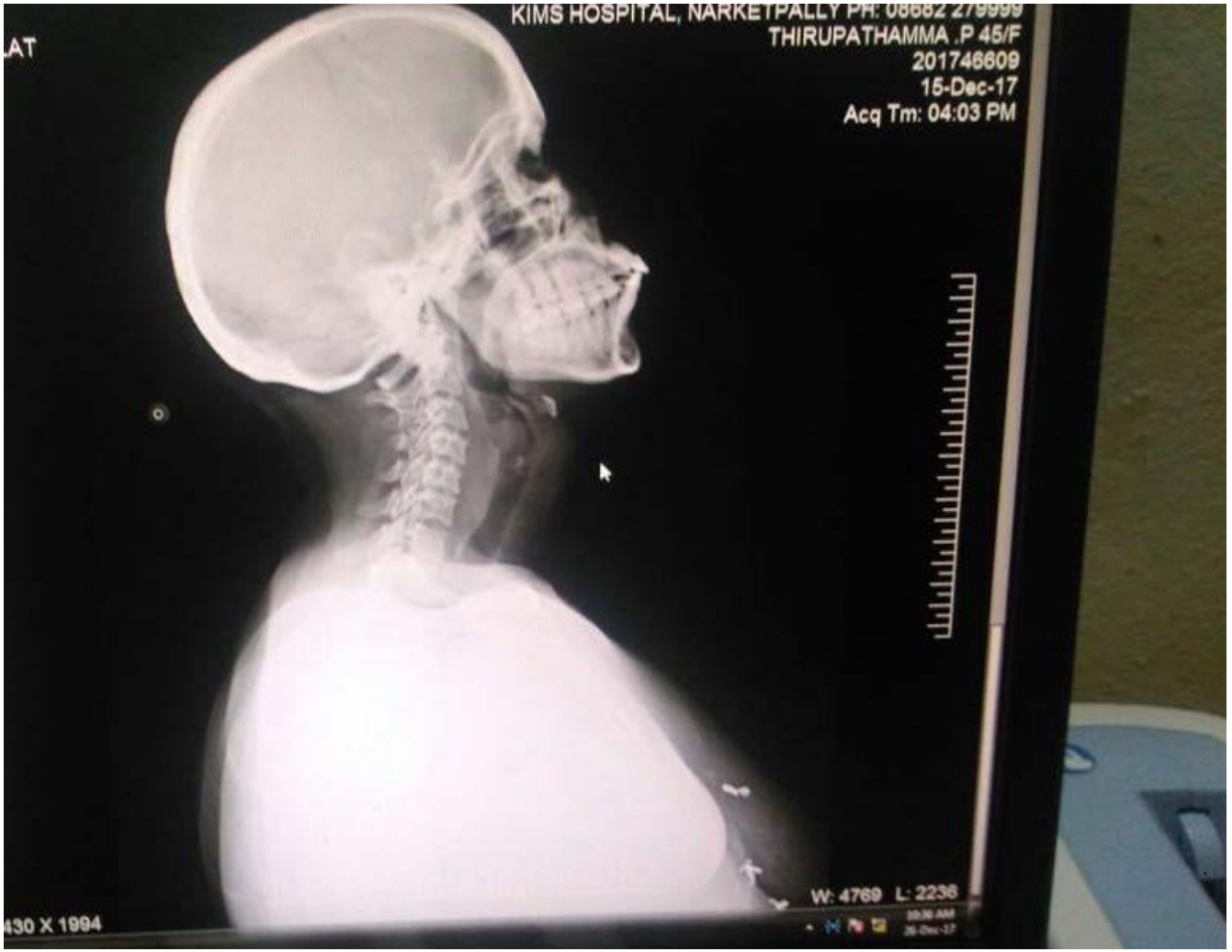
8. Modified Mallampati score: Grade 2

9. Neck: Short neck : +

Neck mobility : Normal

Ability to assume sniffing position :+

Radiographic image showing Trachea deviation



ENT examination:

Findings on Indirect laryngoscopy and Video laryngoscopy :

Larynx could not be visualised due to a bulge over the posterior pharyngeal wall

? CERVICAL OSTEOPHYTES.

- Patient was posted for Total Thyroidectomy under General Anaesthesia and Intubated with Endotracheal tube : 7.00 mm

- Perioperative period were uneventful and patient was extubated on POD 1

- Patient’s vitals were stable on POD 2, 3, 4.

POD 5:

1. Patient was in **Stridor** in propped up position and it worsen in supine position.
2. Spo2: 84 % with 6 lit of oxygen.
3. Perspiration was present.
4. Supra sternal recession was present.
5. Neck : No haematoma, wound was healthy.

POSSIBLE CAUSE: **1*. Laryngeal odema/***

oropharyngeal odema

2.Bilateral vocal cord paralysis.

IMMEDIATE EMERGENCY TRACHEOSTOMY with help of MASK VENTILATION.

POST TRACHEOSTOMY

1. Patient was kept on T piece with 6 litres of Oxygen.
2. SPO2 = 99%
3. Pulse rate= 88bpm
4. Blood pressure =120/70mm Hg.
5. Patient was discharged on POD 14/9 with a metallic tracheostomy tube no.30 in situ.


Thank You !
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