

# Case Report

A case of Airway obstructing Squamous cell carcinoma of supraglottic larynx underwent TOTAL LARYNGECTOMY WITH BILATERAL TYPE 2 MODIFIED RADICAL NECK DISSECTION , NEOPHARYNGEAL RECONSTRUCTION AND STAGED TRACHEOESOPHAGEAL PUNCTURE under the guidance of Medical Superintendent Dr. Mridula A.M, Oncosurgeon Dr.Anup and Anaesthetist Dr. Jayaprakash.S

A 51-year-old male patient, a chronic alcoholic and smoker with known hypertension and Chronic Obstructive Pulmonary Disease on regular treatment, presented to the casualty on 29/04/2026 with acute-onset breathlessness and generalized fatigue. On rapid initial evaluation, the patient was found to be in respiratory distress requiring immediate airway support. Emergency cricothyroidotomy was performed, followed by tracheostomy. After stabilization, the patient was shifted to the ward for further evaluation and management.

A biopsy taken from the lesion revealed squamous cell carcinoma of the supraglottic larynx. Positron Emission Tomography–Computed Tomography (PET-CT) demonstrated a primary glottic tumour involving both vocal cords, extending superiorly into the supraglottic region and inferiorly into the right post-cricoid region, along with right paratracheal lymph node metastasis causing significant airway luminal narrowing.

As part of definitive management, and following pre-anaesthetic evaluation, the patient was scheduled for total laryngectomy with bilateral Type II Modified Radical Neck Dissection (MRND), neopharyngeal reconstruction, and staged tracheoesophageal puncture (TEP) insertion under general anaesthesia. The procedure was performed on 04/05/2026 under the guidance of Medical Superintendent Dr. Mridula A. M., Oncosurgeon Dr. Anup, and Anaesthetist Dr. Jayaprakash.S.

Preoperatively, two large-bore intravenous cannulas and a right femoral central venous line were secured. The patient was preloaded with 500 mL of Ringer’s lactate, and adequate blood products were arranged.

Under general anaesthesia, the surgical procedure was completed successfully over a duration of approximately 4 hours. Continuous haemodynamic monitoring, including invasive arterial blood pressure monitoring, was carried out throughout the procedure. Central venous access was maintained intraoperatively for fluid resuscitation and blood transfusion. Adequate depth of anaesthesia was monitored using Bispectral Index (BIS) monitoring.

Intraoperatively, the patient received 1 unit of packed red blood cells (PRBC), 3 pints of Ringer’s lactate, 2 pints of normal saline, and 1 pint of dextrose normal saline (DNS). The patient remained haemodynamically stable throughout the procedure.

Postoperatively, bilateral cervical plexus blocks were administered for analgesia, following which the patient was shifted to the Intensive Care Unit (ICU) with a tracheostomy tube in situ.

In the ICU, 2 units of fresh frozen plasma (FFP) were transfused on postoperative day 0 (POD 0). On POD 2, total parenteral nutrition (TPN) of 1 litre was initiated. The arterial line and central venous line were removed on POD 1 and POD 5, respectively.

