

USE OF CO₂ LASER (TOLS) & ROBOT (TORS) IN MANAGEMENT OF HEAD & NECK CANCERS



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Head and Neck cancer is one of the commonest cancers in a developing country like India. Every year 12 to 15 lakh new cases of all cancers are reported in India of which 30% are in Head & Neck region. The commonest causes of Head & Neck Cancer are – Tobacco consumed in any form, Areca nut, Alcohol & HPV (Human Papilloma Virus). Head & Neck cancer burden is shifting to the younger generation as more and more people have now started consuming tobacco in form of chewing or smoking at an early age. At the same time, HPV related cancers are also increasing in India because of unsafe sexual practice.

Early detection of cancer is the key to successful treatment and outcome. If Head & Neck Cancers are diagnosed in stages I or II, the cure rate is more than 75% & patients can be treated with either Surgery or Radiotherapy alone with better functional & cosmetic outcomes. Diagnoses of Head & Neck Cancers do not require any special equipment, still 70% of Head & Neck Cancer patients are diagnosed in advanced stages (Stage III & IV) where a combined modality treatment is required i.e. Surgery, Radiotherapy & Chemotherapy with poor outcome.

Early stage Laryngeal Cancers (Cancer of the voice box) were conventionally treated with Radiotherapy for a duration of 6-8 weeks. With the advent & availability of Endoscopic Laser Surgery technology & expertise these patients can now be treated Endoscopically with TOLS (Trans Oral Laser Surgery) with significant cure rate.

The advantages of TOLS are:

- 1) Patients can be treated on Day care basis or may require minimal hospitalization & they can resume work early
- 2) Tracheostomy is not needed
- 3) Majority of the patients may not need a feeding tube
- 4) Patients have a good quality of voice
- 5) If there is a recurrence, it is diagnosed at an early stage with routine clinical examination & there are more options for salvage therapy for preservation of Larynx.

CASE STUDY

A case of 62 years old gentleman who was a chronic smoker and developed hoarseness of voice. He was diagnosed with Stage 1 Cancer in left Vocal Cord & was treated with TOLS in 2012, he was got cured with a good quality of voice. After three years in 2015, he developed Stage 1 cancer in right Vocal Cord & was again treated with TOLS. He is cured of the second cancer, as of today & has a good quality of voice & continues his profession as a salesman without any problem.

In today's era of minimally invasive surgery the cosmetic & functional outcomes are excellent following TORS (Trans Oral Robotic Surgery). It's mainly conducted for Cancers of Oropharynx (Base of Tongue, Tonsil and Soft palate) and Supraglottic Larynx which were earlier traditionally treated either with major open surgery with plastic surgery followed by Radiotherapy or by primary Chemoradiation. The traditional treatment was of longer duration with many days of hospitalization, disfigurement of face & with associated complications or side effects that affected swallowing, speech, breathing & ultimately the Quality of life (QoL) of the patients. In TORS, the Surgeon gets a

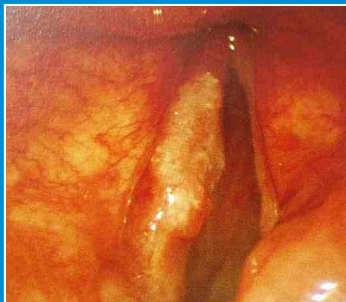
3 D vision with more than 10 times magnification & 360° rotation movement of operating arms that enables the Surgeon to operate with greater accuracy. Patients have minimal discomfort, excellent cosmetic & functional outcomes with shorter hospital stay.

Recently, a 42 years gentleman; a tobacco chewer, was diagnosed with Base of Tongue Cancer & was advised traditional intensive treatment with Radiotherapy & Chemotherapy at another center which would have lasted for 6 - 8 weeks with possible side effects. Fortunately, he was referred to our center. With latest

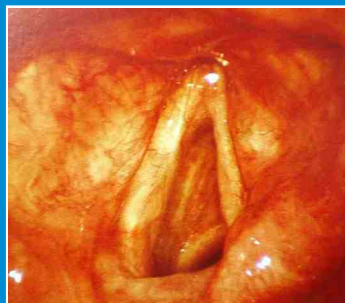
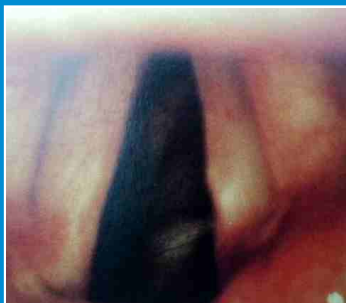
Robot in the state & expertise to treat such patients the functionality of the organ was saved to a greater extend. Subsequently, he was treated with TORS needing only 3 days of hospitalisation & no Radiotherapy. He started his normal diet in a week's time & there was absolutely no disfigurement of his face.

With TORS early stage Oropharyngeal or Supraglottic cancer can be treated with excellent cosmetic & functional outcomes, minimum complications or side effects, requires a short period of hospitalization & improves the QoL

Pre-Operative



Post-Operative



Right Vocal Chord Nodule

Left Vocal Chord Nodule

Supraglottis