Background: Near total laryngectomy (NTL), a voice preserving dynamic tracheopharyngeal shunt procedure, is an alternative to total laryngectomy in selected laryngeal & hypopharyngeal cancers, but has not gained wide acceptance due to perceived fear of surgical complexity. We report our institutional experience with NTL during last 16 years.

Material & methods: A retrospective analysis was carried out from Feb 1998 to Apr 2014. We studied 63 patients who underwent NTL with respect to complications, functional results & survival outcome. Survival was analysed using Kaplan-Meier method.

Results: Sixty two male patients & one female patient with median age of 56 years were studied. Two patients died in postoperative period (Postop day 6 & 26) due to cardiopulmonary event. Median hospital stay was 12 days (range 6-58 days). Pharyngocutaneous fistula was most common complication (25 of 63 patients, 39.6%) & most (20 of 25) were managed conservatively with five patients requiring surgical intervention. Other complications were- aspiration in eight patients (12.7%); wound infection or dehiscence in 5 patients (7.9%); shunt stenosis in 2 patients (3.2%); tracheostoma narrowing in 5 patients (7.9%) with four patients requiring stoma refashioning; chyle leak in one patient (1.6%). Good quality voice was attained by 43 patients (68.2%); 10 patients (15.8%) had fair quality voice; 4 patients (6.3%) obtained bad voice; 5 patients (7.9%) did not develop speech at all. Fifty patients (79.3%) developed normal swallowing function; 12 patients (19%) developed dysphagia due to neopharyngeal stricture but all were managed successfully with dilatation. Ten patients (15.8%) had neck recurrence (4 salvaged with surgery); 5 patients (7.9%) had local recurrence (one salvaged with surgery); 4 patients (6.3%) developed distant metastasis (3 pulmonary & one spinal); 2 patients (3.2%) developed new primary (1 base tongue & other tonsil/ soft palate). Two-year and 5-year disease free survival was 66.1% and 51.2% respectively.

Conclusion: NTL is an oncologically acceptable alternative to total laryngectomy for selected group of lateralised laryngeal & hypopharyngeal cancer. It gives good functional results with normal swallowing and physiologic maintenance free speech in majority of patients. Most of the complications are well tolerated and can be managed conservatively.

No conflict of interest.

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Table 1. Survival Analysis at 18 months

| Groups | Stage | No. of patients | Mortality (n) | Survival (%) | Grade | No. of patients | Mortality (n) | Survival (%) | Tumor thickness***
|--------|-------|----------------|--------------|--------------|-------|----------------|--------------|--------------|-----------------
| I      |       | 16             |              | 100          |       | 02             |              | 100          | 20             | 100             |
| II     |       | 23             | 05           | 78.27 *      |       | 45             | 14           | 68.89 **     | 19             | 02              | 89.48           |
| III    |       | 19             | 05           | 75.69 *      |       | 36             | 13           | 63.89 **     | 25             | 13              | 48.00           |
| IV     |       | 28             | 19           | 32.14 *      |       | 03             | 02           | 33.33        | 22             | 14              | 36.37           |

* stage II & III: p=0.729 ** grade II & III: p=0.635 ***tumor thickness:p=0.00

312. Is tumour thickness a better prognostic indicator than the TNM staging in the cancer oral tongue? Our experience

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Background: The TNM staging forms the corner stone for the prognostication and formulation of the adjuvant treatment guidelines in the management of the cancer oral tongue. The information derived from the tumor thickness is utilised only in the decision making with regards to addressing the neck surgically in the early cancers tongue (T1 and T2) with clinically negative nodes (N0). We postulate that the tumor thickness has far more reaching effects. It is the single most important prognostic factor which would play a key role in the adjuvant treatment planning.

Materials & Method: The study enrolled 136 patients of cancer oral tongue from April 2010 to June 2012 (27 months). 86 patients were selected for the final analysis, which included only the upfront surgical patients. The neck was addressed for all the cases except the very early lesions, taking into account the non-reliable follow up of the study subjects. They were followed up for 18-45 months. 18 months survival analysis was done and compared with regards to the stage, grade and tumor thickness.

Results: Sex ratio: 65 males (75.58%), 21 females (24.42%)
Median age: 49.69 years (males), 51.52 years (females)
Univariate analysis- significant for stage and tumor thickness.

Comparison of the two survival curves at tumor thickness of <1 cm and > 1 cm were statistically significant: (p = 0.00)
Median tumor thickness in survivor at 18 months is 0.8 cm & 1.2 cm in non survivors (p=0.00)
A regression equation was formulated to predict the mortality % at 18 months

Four groups based on the increasing thickness were formed:
(A) Good Prognosis- Group I: 0.1-0.6 cm and Group II: 0.7-0.9 cm
(B) Poor Prognosis - Group III: 1.0- 1.2 cm and Group IV : 1.3 cm & >
313. Expression of vitamin D receptor in head and neck cancer (HNC), immunoreactivity scoring (IRS) and relation of serum vitamin D levels (SVDL) and effect of oral vitamin D supplementation with chemoradiotherapy with special reference to quality of life

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Background: Head and Neck Cancer (HNC) is a major health problem in the India. Late diagnosis results in low treatment outcomes and considerable costs. Vitamin D receptor (VDR) is involved in cell growth and differentiation in normal human tissue and via wide spectra of activities is involved in anticancer defence mechanisms of the body. Decreased serum Vitamin D (are associated with higher cancer incidence and mortality in men in colorectal, breast, lung and prostate cancers. Oral complications are a frequent problem ranging from 12% for patients receiving adjuvant chemotherapy to nearly 100% for patients receiving greater radiation doses. The objective of the present study is to determine VDR expression, correlation with SVDL and effect of pre and post vitamin D supplementation on functional performance and QOL outcomes in patients with chemo and radiotherapy regimen.

Materials and methods: n=110 HNC patients were included between April 2012 and October 2013. A total of 15 normal healthy, age and sex matched and unrelated to patients were also recruited served as ‘controls’. Punch biopsy was taken from the cancer tissue and HPE and VDR expression evaluated with Immunoreactivity scoring (IRS). Pre and post serum vitamin D levels were estimated. The mean age of cases was slightly higher (42.67 ± 10.83 vs. 48.45 ± 13.48).

All patients were supplemented with oral vitamin D for a period not less than 120 days along with standard management of HNC as per stage of the disease. Quality of life was assessed applying three different scales Oral mucositis scale (OMS), Swallowing Performance status scale (SPSS) and categorical scale.

Results: The mean % cells stained was significantly different and lower (37.6%) in cases as compared to controls (p=0.00). The mean Intensity and IRS scores were found similar between controls and cases. The mean IRS score of stage IVB was found significantly different and lower as compared to both Stage III (Z=3.51, p=0.005) and Stage IVA (Z=3.011, p=0.016). The mean IRS scores increase with age, higher in males, higher in grade GX, decrease with stage, higher in those who received chemotherapy. The Kruskal-Wallis (H) ANOVA revealed significantly different IRS scores among staging (H=18.46, p<0.001). The mean Vitamin D levels of cases was significantly different and lower as compared to controls (-1.33 ± 0.62 vs. -1.90 ± 0.43, U=327.00, p=0.002). The Vitamin D supplementation significantly improved erytHEMA, edema, ulceration and pain in patients those who received the supplementation. Similarly significant improvement in scores of SPSS and Categorical scale was also observed in group supplemented with same.

Conclusion: VDR expression was decreased in HNC compared to controls and patients with lower expression had advanced disease compared to those with higher VDR expression. Serum Vitamin D levels in cases of HNC were lower compared to controls. Concomitant vitamin D supplementation reduces toxicity and improves quality of life.

No conflict of interest.

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314. Minimally invasive parathyroidectomy in patients with primary hyperparathyroidism: Intra-operative PTH measurements and frozen section analysis are not beneficial in case of positive pre-operative imaging

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Background: Primary goal of our study was to evaluate whether intra-operative PTH measurement and frozen section analysis affect intra-operative decision making when pre-operative localising studies are positive.

Material and methods: A retrospective analysis was performed in a series of 95 individuals with primary hyperparathyroidism who underwent surgery between December 2005 and December 2013.

Results: Minimally invasive parathyroidectomy (MIP) was performed in 80 patients. The mean operation time was 40 minutes. Bilateral exploration was necessary in 15 patients due to insufficient pre-operative localisation. Sestamibi scan was more sensitive in localizing than ultrasound (86 % vs. 30%). Frozen section analysis altered the surgical plan in 6 patients. In 2 patients bilateral exploration was performed because of insufficient decrease in PTH level.

Conclusions: Optimal pre-operative localisation and reporting with ultrasound and parathyroid scintigraphy is vital to perform successful MIP. Frozen section analysis and IOPTH measurement are helpful in case of re-do surgery. Multiple gland disease and inconsistent preoperative imaging studies but contribute little in routine cases with well defined adenomas.

No conflict of interest.

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