



SESSION 1 - Thyroid

1. REAL-WORLD EFFICACY OF LENVATINIB: DATA FROM THE COMPASSIONATE USE IN THE TREATMENT OF RAI-REFRACTORY DIFFERENTIATED THYROID CANCER (DTC) IN ITALY

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2. LATERAL NECK DISSECTION FOR AGGRESSIVE VARIANTS OF WELL-DIFFERENTIATED THYROID CANCER

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3. SINGLE DRAIN PLACEMENT OVER THYROID BED AND SUBPLATYSMAL PLANE IN PATIENTS UNDERGOING THYROID SURGERY FOR MALIGNANCY

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4. NEW INDICATIONS FOR CENTRAL NECK DISSECTION: PATTERN OF LYMPHNODE DIFFUSION IN DIFFERENTIATED THYROID CANCER (DTC)

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5. HISTOPATHOLOGICAL FEATURES AND OUTCOMES OF POORLY DIFFERENTIATED THYROID CARCINOMA

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6. THE RESULTS OF COBLATION SURGERY IN TREATMENT OF PATIENTS WITH BILATERAL PARALYSES OF THE LARYNX AFTER THYROIDECTOMY

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1. Real-world efficacy of lenvatinib: data from the compassionate use in the treatment of RAI-Refractory Differentiated Thyroid Cancer (DTC) in Italy

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Rationale: Lenvatinib is a TKI approved for patients with RAI-resistant DTC. Efficacy and safety of lenvatinib has been evaluated in the multicenter, randomized, double-blind, placebo-controlled phase 3 study (SELECT trial). Before the drug approval (July 2016) from the Italian National Regulatory Agency (AIFA), a compassionate use program (EAP) has been provided in Italy. The scope of this observational study is to analyze data from the first series of patients treated with lenvatinib from real life and compared them with the results from SELECT trial.

Materials and methods: Primary aim is the comparison between real life data and SELECT study in terms of: response rate (RR) at 4 months; median progression free survival (PFS); PFS will be presented using Kaplan-Meier curves and if pertinent, stratified log-rank test will be performed. Toxicity profile, the changes from baseline will be summarized using descriptive statistics. All primary end-points will be compared with SELECT study using 95% confidence limits. Secondary endpoints include overall survival (OS) correlation between dose intensity and baseline clinical characteristics; PFS beyond progression; effect of lenvatinib delay on RR, etc.

Results: Ninety-eight patients (50 M/48 F) have been treated in 16 different hospitals from September 2014 to June 2016. Eighteen percent of patients had one or more comorbidities, being hypertension the most common (58.3%). Ninety-eight percent of patient were treated by surgery, followed by radioactive iodine in 94% of the cases. Sixty-one percent of patients received one or more TKIs and chemotherapy was delivered in 25% of the cases before lenvatinib. Partial response and stable disease were observed in 35.6% and in 41.1% of the subjects; progression of disease was recorded in 15.1% of patients. Median PFS and OS for the entire population were 10.8 months (95% CI, 7.7-12.6) and 16.4 months (95% CI, 14.4-19.0). Secondary objective analyses are ongoing.

Conclusions: Lenvatinib is active also in a real-life population, although response rate and PFS are lower than those reported in the SELECT trial. Activity of lenvatinib seems to be lower in heavily pretreated patients.

2. Lateral neck dissection for aggressive variants of well-differentiated thyroid cancer

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Rationale: Well-differentiated thyroid cancer (WDTC) is characterized by favorable disease course and excellent survival outcomes. However, patients with lateral neck nodal metastases have a lower loco-regional control (LRC) and therefore a more aggressive treatment is required. Furthermore, the impact on survival of aggressive histologic variants of WDTC in N1b patients is still to be defined.

Materials and methods: A multi-centric retrospective analysis on patients who underwent therapeutic lateral neck dissection (ND) for WDTC between 1994 and 2015 was performed. Data were collected in a single database. Aggressive histologic variants (AHVs) included the following sub-types: tall-cell, Hurtle-cell, diffuse sclerosing, and WDTC with poorly differentiated areas.

Results: The study included a total of 352 patients. Three hundred and forty-one (84%) NDs were performed concomitantly with total thyroidectomy, 65 (16%) were salvage procedures. Five-year overall survival (OS), disease-specific survival (DSS), LRC, and metastasis-free survival (MFS) were 92.5%, 97.2%, 88.6%, and 86.3% in the entire cohort. AHVs, diagnosed in 40 (11.4%) patients, demonstrated a statistically significant impact on OS and DSS ($p=0.007$ and $p=0.047$, respectively). OS, DSS, LRC, and MFS in patients with AHV were 82.2%, 93.6%, 80.3%, and 87.3%, respectively. Advanced age (>55 years) was the only significant factor affecting survival (OS, $p<0.001$; DSS, $p=0.011$) in this sub-group.

Conclusions: Patients with lateral neck metastases from AHVs have a significantly lower survival than WDTC; nevertheless, total thyroidectomy and lateral neck dissection with postoperative radio-iodine treatment warrant satisfactory survival outcomes. Patients older than 55 years have a worse prognosis.

3. Single drain placement over thyroid bed and subplatysmal plane in patients undergoing thyroid surgery for malignancy

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Rationale: Historically, the thyroid bed area has been strapped to prevent hematoma formation after thyroid surgery. With the advent of better suction drainage systems, surgeons have done away with strapping and use a drain following thyroid surgery to obliterate the dead space and evacuate collected blood and serum. Controversy exists regarding the use of suction drainage with data in the literature suggesting that drains can be avoided in certain thyroid surgeries.

We present a unique way of placing a single drain in the thyroid bed and bringing it out in the subplatysmal plane. We believe that this method prevents fluid collection in both these potential spaces thus leaving behind a dry wound for good healing.

Materials and methods: 214 patients who underwent any form of thyroidectomy for thyroid cancer at PD Hinduja National Hospital & Medical Research Centre, Mumbai, between January 2010 to August 2017 were included in this study.

Results: The age range was 7–80 years with 63% of the patients being female. 27 patients were operated for a thyroid nodule < 1cm, 109 patients for a nodule 1-4cms, and 35 patients for a nodule >4cms in size. 10.7% underwent a hemithyroidectomy, 77% a total thyroidectomy and 9.8% a completion thyroidectomy. 84 patients underwent central compartment lymph node dissection and 58 patients underwent a lateral neck dissection (unilateral in 84.6% and bilateral in 15.4%).

A skin crease incision was used for all thyroidectomies. Energy sources used were monopolar and bipolar cautery. A single No. 12 French suction drain was placed in the thyroid bed and extending into the subplatysmal plane. This drain was brought out just lateral to the incision. The wound was closed in layers with platysmal and subcuticular absorbable sutures. No dressing was applied post-operatively. Out of 214 cases, 69.6% were papillary carcinoma, 11.7% were follicular carcinoma and 4.2% were medullary carcinoma while the remaining were Hurtle cell carcinoma and diffuse large B cell Lymphoma.

Out of the 214 thyroidectomies, six patients had hematoma formation. However, only three required reexploration. No patient had a wound erythema or induration.

Conclusions: Inserting a single suction drain into the thyroid bed and subplatysmal plane following thyroid surgeries leaves an extremely dry thyroid and subplatysmal bed with minimal erythema and induration.

4. **New indications for central neck dissection: pattern of lymphnode diffusion in differentiated thyroid cancer (DTC)**

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Rationale: Differentiated Thyroid Cancers (DTCs) are the most common endocrine malignancies.

The percentage of regional lymphnode metastases in those kind of cancers rises up to 20-50%, interesting in particular the levels VI and VII (A-B-C-D areas).

Almost 15% of patients develops regional recurrence after thyroidectomy.

Aim of this study is to perform a prospective evaluation of the central nodal involvement pattern in order to standardize the nodal treatment.

Materials and methods: This prospective non-randomized study enrolled consecutively 115 untreated patients with DTC who underwent thyroidectomy and bilateral central neck dissection (CND) with the technique of the four areas (A-B-C-D) as described in our previous work at the European Institute of Oncology (EIO), Milan, Italy.

The patients were stratified by T characteristics with the relative percentage of pN+ for each T stage.

We analyzed ratio between positive/dissected N of each area for every subclass of T.

Results: According to our data, we recommend in case of right lobe DTC to perform thyroidectomy with dissection of right central neck dissection (ABC areas); in case of a left lobe DTC dissection of the left central neck dissection (ACD areas).

In case of an isthmus DTC our suggestion is to perform complete central neck dissection (ABCD areas).

Conclusions: Our technique allows to enhance oncological benefits, such as an accurate disease staging for therapy and follow up tailored on the disease, enhance the efficacy of radioiodine treatment, it decreases rates of local recurrence and it reduces possible post-surgical complications.

5. Histopathological Features and Outcomes of Poorly Differentiated Thyroid Carcinoma

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Rationale: Poorly differentiated thyroid carcinomas (PDTC) represent a rare group of thyroid cancers, often regarded as anaplastic carcinomas and therefore not treated with curative intent. Current literature is limited when reporting, histopathological features, treatment options and outcomes. The aim of this paper is to describe our experience of managing this group of patients and to provide evidence for an optimal treatment algorithm

Materials and methods: Twenty-seven consecutive patients diagnosed with PDTC at our Thyroid Oncology Unit were retrospectively reviewed from 2002 to 2015. Clinical presentation, diagnostic and histological findings and oncological outcomes were analyzed. All patients were discussed at the thyroid multidisciplinary (TMDT) team meeting. All histopathology specimens were reviewed by the core TMDT histopathologists. Maximum follow-up is 12 years

Results: There were 20 females and 7 males. The age range was between 27 and 86 years. All patients presented with a symptomatic thyroid mass and 2 patients had pre-operative vocal cord paralysis. 2 patients had laryngeal invasion at presentation and 2 gross angio-invasion. 7 patients were T3 and the rest T4. Most specimens had a combination of PDTC features with well-differentiated and anaplastic areas. All patients were treated curative intent and had total thyroidectomy either primarily or staged, with central compartment neck dissection (CCND). 2 patients required midline sternotomy. All patients underwent radioiodine ablation either with doses of 3.7 Gbq or 5.5 Gbq. Overall survival was 69.6%

Conclusions: PDTC is an aggressive disease characterized by advanced stage, extra-thyroidal spread and a higher proportion of distant metastasis at presentation. Total thyroidectomy (with adequate macroscopic resection) with CCND and lateral compartment neck dissection is the most important factor for adequate local control. Radio-iodine should be considered as an adjuvant treatment in most patients. Post-operative radiotherapy should be reserved for those patient with gross extra-thyroidal extension and invasion of local anatomical structures.

6. The results of coblation surgery in treatment of patients with bilateral paralyses of the larynx after thyroidectomy

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Rationale: Bilateral laryngeal paralysis may occur as a result of the following reasons: surgical injury (44%), malignant neoplasms (17%), endotracheal intubation (15%), neurological disorders (12%), idiopathic (12%). "As many as three-quarters of adult patients with stenosis of larynx and trachea can be treated endoscopically." (David J. Howard, Guri S. Sandhu, 2008, "The Laryngoscope").

Materials and methods: From 2015 till 2017 in the ENT department of MBU "CRH" Balashikha City District conducted 25 operations to remove paralytic laryngeal stenosis by cold plasma surgery. The age of patients ranged from 40 to 65 years, all patients - women. 15 patients were chronic cannula carrier, 10 patients were not preemptively tracheostomised. The cause paralytic bilateral stenosis of the larynx have been damage to the recurrent laryngeal nerve during thyroidectomy.

For tracheostomised patients anesthesia was performed through the tracheostomy, patients without tracheostomy tube - nasotracheal intubation was performed. The direct microlaryngoscopy by Klyaynzasser was performed in the operating room under endotracheal anesthesia in all patients. Attach a video monitor under the control of a rigid endoscope cold plasma unit Coblator II in Ablate-7 mode, dissected on one side the vocal cords in the middle and posterior thirds, and ablation was performed arytenoid cartilage vocal process. As a rule, we noted minor bleeding, which stopped in the coagulation mode. Upon awakening, patients were transferred to the department.

Results: Postoperatively all patients was observed an improvement in a breath to breath through the natural airway and a closed tracheal tube. Patients were discharged from the hospital for 5-7 days after surgery.

Then the patients were followed up for 6-12 months. At follow-up examination in 22 patients noted improvement in the form of a persistent increase in the lumen of airways by 2-3 times in the projection of the glottis. In 3 patients (2 carrier tracheostomy, the other - no) at 9 months revealed restenosis at the level of the glottis, which forced to resort to carrying out a similar operation with the contralateral side. Thus, 22 out of 25 patients operated contact cold plasma method was effective surgery (88%).

Conclusions: Talking into account the results obtained, we appreciate the benefits and the prospect of this technology.