ISW26-396-01 (0378)

LEFT NON-RECURRENT LARYNGEAL NERVE ASSOCIATED WITH IPSILATERAL THYROID LOBE HYPOTROPHY: RARE CASE PRESENTATION

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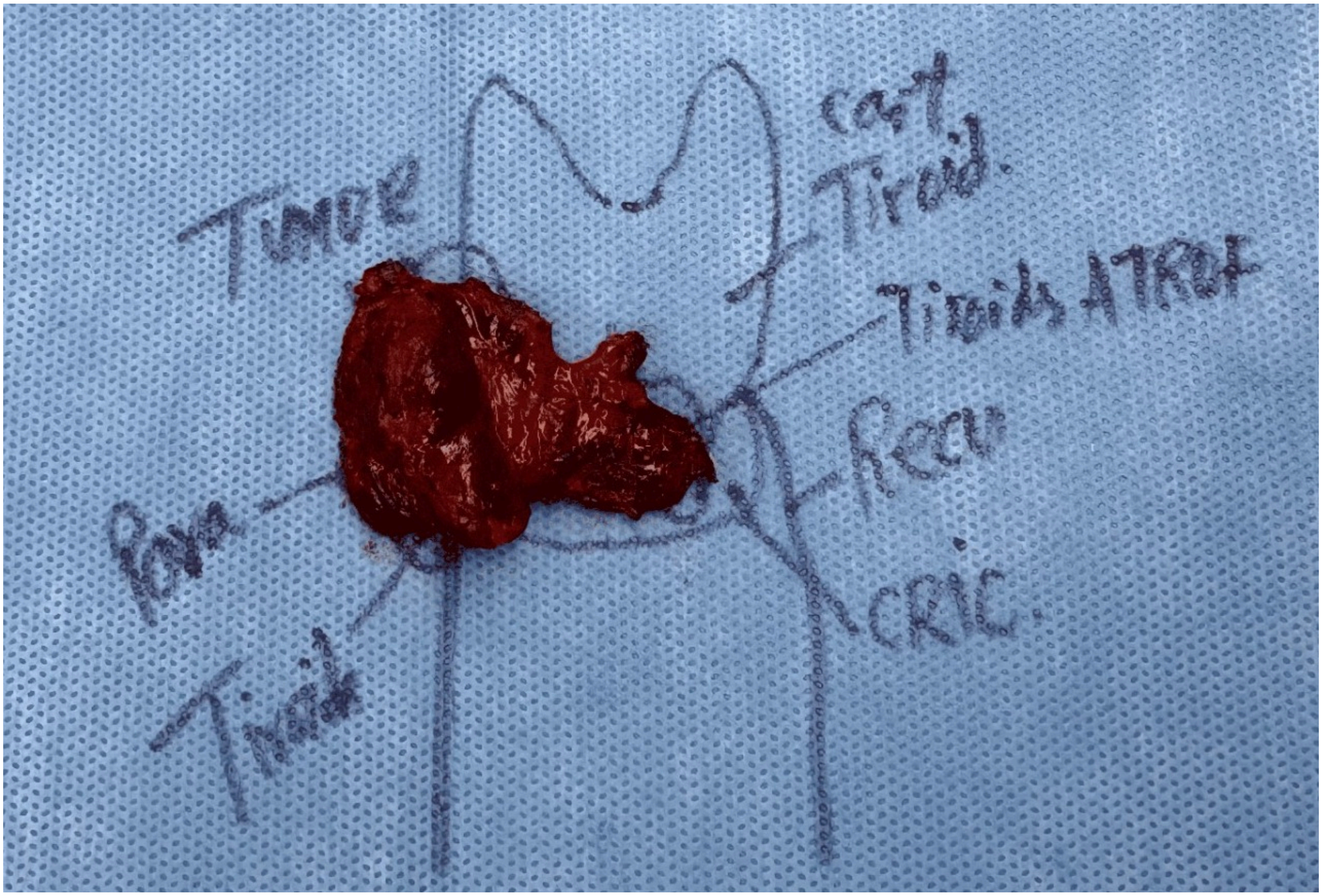
Introduction:
The non-recurrent laryngeal nerve (NRLN) is an extremely rare anatomical variant, usually associated with embryological anomalies. With an incidence <1% on the right and nearly 0% on the left, failure to recognize it during surgery increases risk of complications. Its association with an ipsilateral thyroid lobe hypotrophy is yet to be described.

Material and Method:
We present the case of a 55-year-old female evaluated for a thyroid nodule. Preoperative ultrasound revealed a 1.5cm, hypoechoic, irregular nodule with microcalcifications in the right lobe, with the left lobe appearing hypotrophic. Fine-needle aspiration confirmed papillary thyroid carcinoma (Bethesda VI). Thyroid function tests were normal, total thyroidectomy was indicated.

Results:
During surgery, a nerve was initially identified appearing to be the superior laryngeal nerve (SLN), however, the recurrent laryngeal nerve could not be observed along its usual path. Upon re-evaluation, the actual SLN was identified caudally entering at the cricopharyngeal muscle. Neuromonitoring confirmed that the nerve initially identified was in fact a left NRLN entering the larynx horizontally. The left thyroid lobe was markedly hypotrophic. The procedure was completed without complication, with a preserved vocal cord function post-operative. A video documenting intraoperative nerve mapping and anatomical findings is available.

Conclusion:
This case emphasizes the importance of recognizing anatomical variants of the recurrent laryngeal nerve. The association of a NRLN with an ipsilateral thyroid lobe hypotrophy has not been previously reported. Knowledge of embryology, correct anatomical assessment, and use of intraoperative neuromonitoring are crucial to guarantee patients safety during thyroid surgery, particularly when an anatomical variation is present.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ISW26-396-02 (0675)

NECK SURGERIES IN PATIENTS WITH CHRONIC KIDNEY DISEASE

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Introduction:
End-stage renal disease (ESRD) impairs platelet function, placing affected patients at an increased risk of intraoperative and postoperative bleeding. In addition, ESRD is frequently accompanied by other comorbidities, such as arterial calcifications, which further elevate surgical risk. Consequently, patients with ESRD who undergo any type of operation are theoretically more susceptible to complications. This study aimed to utilize a large, multi-institutional database to investigate the impact of chronic kidney disease and ESRD on outcomes in patients undergoing neck surgeries.

Material and Method:
The American College of Surgeons National Surgical Quality Improvement Program database was queried for patients who underwent either thyroidectomy or parathyroidectomy or lymph node resection of the neck from 2022 to 2023 by using the CPT codes. They were stratified by preoperative estimated glomerular filtration rates (eGFR) and grouped into five cohorts.The primary outcome was 30-day mortality and secondary outcomes included perioperative bleeding, reoperation and prolonged hospital stay. Univariate logistic regression was used to calculate the odds of having postoperative mortality and complications.

Results:
The final population consists of 39248 patients. Patients with GFR<30 and eGFR 15-29 had higher risk of 30 days mortality, perioperative bleeding, reoperation and prolonged hospital stay. Patients with eGFR 60-89 had higher risk for perioperative bleeding and reoperation.

Conclusion:
Patients candidates for neck surgeries, low eGFR is an important risk factor to consider, as those with eGFR<30 and eGFR appear to be at significantly higher risk of mortality, perioperative bleeding, need for reoperation and prolonged hospital stay.

Table: Odds of Having Postoperative Complications

Complications	GFR	Odds Ratio	95% Confidence Intervals	p-value
Mortality (30 days after operation)	≥90		Reference	
	60-89	1.21	0.52-2.44	0.773
	30-59	2.46	0.93-6.50	0.07
	15-29	8.74	2.05-37.34	**0.003**
	<30	5.78	1.73-19.37	**0.004**
Bleeding requiring transfusion	≥90		Reference	
	60-89	1.01	0.69-1.48	0.973
	30-59	2.33	1.45-3.73	**<0.001**
	15-29	6.97	3.21-15.16	**<0.001**
	<30	6.15	3.49-10.83	**<0.001**
Return to OR	≥90		Reference	
	60-89	1.54	1.27-1.86	**<0.001**
	30-59	2.11	1.58-2.81	**<0.001**
	15-29	3.66	1.98	**<0.001**
	<30	4.6	3.15-6.72	**<0.001**
Prolonged LOS (>30 days after operation)	≥90		Reference	
	60-89	0.81	0.4-1.63	0.55
	30-59	2.23	0.99-5.03	0.054
	15-29	14.29	5.55-36.81	**<0.001**
	<30	8.78	3.88-19.89	**<0.001**

LOS: length of stay

ISW26-396-03 (0183)

MAGNITUDE AND FACTORS ASSOCIATED WITH DELAYED DIAGNOSIS OF BREAST CANCER IN HAWASSA UNIVERSITY COMPREHENSIVE SPECIALIZED HOSPITAL ONCOLOGY CENTER, 2024

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Introduction:
Breast cancer is a complex and heterogeneous disease characterized by the uncontrolled growth of abnormal cells in the breast tissue. Advancements in diagnostic technologies have improved the accuracy and efficiency of breast cancer diagnosis. Despite the availability of screening programs and diagnostic technologies, delays in diagnosing breast cancer persist, posing significant challenges to healthcare systems and patient outcomes in developing countries.

Material and Method:
An institutional-based cross sectional study was conducted on breast cancer patients in Hawassa University Comprehensive specialized hospital oncology center and data was collected from January 01/01/2025 to 15/01/2025. Simple random sampling technique was used to select breast cancer patients. Sampling with probability proportional to size method was used and sample size was 358. Pretested, structured, checklist was used to extract data. Data was entered by EpiData version 4.6.2 and was exported to SPSS version 25. Multivariable logistic regression was performed to identify factors associated with delayed diagnosis of breast cancer. Adjusted odds ratios (AOR) with 95% confidence intervals were used. $P < 0.05$ was considered statistically significant.

Results:
In this study the prevalence of delayed diagnosis of breast cancer was 44.4% 95% CI (39.2-49.5). Primary education (AOR=8.4, 2.9-24.4), unemployed patients (AOR=8.3, 3.3-20.8), breast self-examination (AOR=7.1, 1.6-31.7) and uninsured patients (AOR=4.1, 1.7-10.5) were significantly associated with delayed diagnosis of breast cancer

Conclusion:
In this study the prevalence of delayed diagnosis of breast cancer was high 44.4%. Education, employment, breast self-examination and health insurance were predictors of delayed diagnosis among breast cancer patients

ISW26-396-04 (0163)

NEAR-INFRARED MAPPING OF RECURRENT LARYNGEAL NERVE BY FLUORENSCENCE-GUIDED SURGERY USING INDOCYANINE GREEN ANGIOGRAPHY

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Introduction:
The recurrent laryngeal nerve (RLN) damage and parathyroid gland injury are the most severe complications of thyroid surgery. The possibility of RLN confirmation in the near-infrared spectrum after the injection of indocyanine green (ICG) was not yet been evaluated. This study aimed to evaluate the ICG angiography for the identification of RLN during thyroid and parathyroid surgery.

Material and Method:
ICG angiography of RLN was performed in 7 patients. An intraoperative neuromonitoring (IONM) was applied as a method of controlling RLN. During the operation, parathyroid glands and RLN were identified by visual inspection (naked eye). To further confirm the location of the parathyroid glands by their autofluorescence, an intravenous injection of ICG was performed with a concentration of 0.25 mg/kg followed by the application of the Fluoptics 800 (Fluobeam) image-based system. A good signal was achieved in the near-infrared spectrum from the RLN in all cases after the ICG injection.

Results:
Sufficient blood perfusion of the RLN could be considered as a reasonable explanation for the exhibition of a good ICG near-infrared signal in all 7 patients. ICG application might be considered as a helpful approach for the confirmation of the RLN in addition to routine visual identification. Such a feature could be applied during fluorescence-guided surgery for evaluation of the parathyroid glands autofluorescence.

Conclusion:
Visualization of RLN by ICG angiography might be considered as an additional useful tool to prevent its injury.

ISW26-396-05 (0484)

INCIDENCE, PROGNOSTIC AND PREDICTIVE SIGNIFICANCE OF PROGRAMMED DEATH LIGAND-1 (PD-L1) IN THYROID CARCINOMA OF FOLLICULAR CELL ORIGIN

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Introduction:
Programmed Death Ligand-1 (PD-L1) expression in thyroid cancers (TC) could predict response to immune check point inhibitor (ICI) therapy and may have prognostic value. The primary objective of this study was to investigate the incidence of PD-L1 expression in TC and secondary objectives were to corelate PD-L1 expression with various clinicopathologic prognostic factors including BRAFV600E expression and tumor infiltrating lymphocytes (TIL).

Material and Method:
Retrospective study (2004-2019) consisting of 247 TC patients including 169 papillary, 57 follicular, 18 poorly differentiated and 3 Hurthle cell carcinoma. Pathology was reviewed and immunohistochemistry staining for PD-L1 and BRAFV600E performed. PD-L1 expression was correlated with clinicopathologic prognostic factors disease-free survival (DFS) and overall Survival (OS).

Results:
The overall incidence of PDL-1 immunostaining was 28.3% and didn't differ significantly by histology type (p=0.255). PDL positive tumors showed significantly high incidence of BRAF immunostaining (81.4 Vs 33.3%; p=<0.0001) but significantly low TIL (61.4 Vs 92.1%; p=0.0001). At different cut offs, PDL-1 expression was significantly associated with age (p=0.043), sex (p=0.024) and tumor multicentricity (p=0.046) but not with tumor size (p=0.580), lymph node metastases (p=1.000), extra-thyroidal invasion (p= 0.691), distant metastases (p=0.847), Neutrophil- Lymphocyte Ratio (p=0.322), and Platelet-Lymphocyte Ratio ratio (p=0.130). DFS (p=0.509) and OS (p=0.861) for the whole cohort as well as for different histology were not significantly affected by PDL-1 expression.

Conclusion:
The incidence of PDL-1 expression does not vary significantly in different TC. The concurrent expression of PDL-1 with BRAF could potentially indicate use of dual target therapy in radioiodine refractory TC.

ISW26-396-06 (0219)

ASSESSING MANAGEMENT AND OUTCOMES IN TOXIC GOITER: A MULTICENTRE RETROSPECTIVE COHORT STUDY FROM SOUTHERN ETHIOPIA

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Introduction:
Hyperthyroidism in Ethiopia is treated mainly with antithyroid drugs and surgery, but adherence to international standards is unknown. We assessed thyroid-function test ordering, anti-thyroid drug use, and operative practice in adults with toxic goiter managed at three public hospitals in Sidama Regional State, and explored factors linked to procedure choice and early morbidity.

Material and Method:
A retrospective cohort included every adult (≥18 years) who underwent thyroidectomy for toxic goiter from 1 October 2020 to 30 September 2024. Case notes and a brief telephone interview provided clinical data. Primary outcomes were guideline-concordant TFT ordering, appropriate ATD prescribing, and extent of surgery. Secondary outcomes were drug adverse events, postoperative thyroxine prescribing, length of hospital stay, and post-op complications within three months. Logistic regression examined predictors.

Results:
We analyzed 287 patients; 89.9% were women, median age 38 years (IQR 30-45). Toxic multinodular goitre accounted for 93.4% of cases. Baseline testing most often comprised TSH + total T_3 + total T_4 (54.3%); Every patient received only propylthiouracil (PTU). Near-total or total thyroidectomy (NTT/TT) was performed in 153 patients (53.3 %) and subtotal resections in 134 (46.7%). Only 19% of those who underwent NTT/TT received postoperative thyroxine. Treatment facility was the only independent predictor of NTT/TT (χ^2 21.6, $p<0.001$).

Conclusion:
This study showed clear areas to improve clinical practice keeping with guideline standards. The study also revealed a significant variation in the extent of thyroidectomy performed. Region-specific protocols, stable access to methimazole and levothyroxine are warranted to improve the quality and safety of toxic-goitre care.

ISW26-396-07 (0543)

PARATHYROIDECTOMIES USING INTRAOPERATIVE SESTAMIBI RADIONUCLIDE LOCALIZATION IN NON- LOCALIZING PARATHYROID ADENOMA BY SESTAMIBI IMAGING

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Introduction:
The role of intraoperative sestamibi radionuclide localization in parathyroid surgery in non-localizing parathyroid adenomas has not been well characterized.

Material and Method:
This is a retrospective study of all parathyroidectomies carried out by a single surgeon from November 2019 to October 2023. We collected data on demographics, imaging, preoperative and intraoperative labs, pathology findings, surgical time, and sestamibi levels. Localizing and non-localizing adenomas were defined by sestamibi scan reports. Each patient was injected with Technetium-99m sestamibi preoperatively. In the operating room, a Neoprobe (Devicor Medical Products) was used to measure outputs in different quadrants of the thyroid to help guide surgery. After removal of the suspected parathyroid adenoma, background output levels were measured at the Neoprobe level of the thyroid. Parathyroid adenoma ex-vivo output levels were measured with the excised adenoma placed on the chest away from the thyroid bed. Primary outcomes were surgical times, adenoma weight, and ratio of parathyroid adenoma ex-vivo to background. P values were determined using t-testing.

Results:
Average time to excision (minutes), weight of adenoma (mg) and Neoprobe ratio of ex-vivo adenoma to background for localizing and non-localizing parathyroid adenomas were (34.1 vs 38.7 minutes, p= 0.15), (1434.8 vs 745.5 mg, p= 0.013), and (2.07 vs 1.79, p=0.073), respectively.

Conclusion:
Intra-operative sestamibi radionucleotide localization can be helpful for non-localizing parathyroid adenomas with comparable surgical times as they are on average 1.79 times greater than background Neoprobe levels. Smaller adenomas may be more difficult to localize on intraoperative sestamibi due to relative smaller uptake.

ISW26-396-08 (0838)

DELAYS IN SURGICAL REFERRAL AND TREATMENT OF ENDOCRINE DISEASES: A MIXED-METHODS ANALYSIS OF COMMUNICATION AND SYSTEM-LEVEL BARRIERS

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Introduction:
Delays in care can lead to patient dissatisfaction, harm, and death. Effective communication is a crucial component of the diagnostic odyssey to ensure timely response, improve outcomes, and reduce adverse events.

Material and Method:
This IRB-approved mixed-methods study was conducted at the MedStar Endocrine Surgery clinic. A retrospective review of 898 patient charts identified quantitative delays in referral (first abnormal lab or imaging to the first surgical consult) and delays in treatment (consult to surgery). Concurrently, 15 semi-structured interviews with English-speaking patients and staff explored barriers to timely endocrine surgical care. Transcripts were analyzed thematically.

Results:
The median delay in referral was 157 days (range: 10 - 6,101), and longer delays were associated with older age, thyroid disease, and female sex. The median delay in treatment was 62 days (range: 8 - 2,244), and longer delays were associated with older age, thyroid disease, female sex, African American race, and lack of enrollment in CRISP or Commonwell (DMV interoperability platform). Contributing qualitative factors included COVID-19, patient or clinic availability, misdiagnosis, and incidental findings. Communication methods included verbal discussions, phone calls, portal messaging, email, and Microsoft Teams. Effective communication featured active listening, proactive responsiveness, and personalized explanations. Barriers included poor anticipatory guidance, miscommunication, and inaccessible systems, each contributing to delays.

Conclusion:
Delays in endocrine surgical care are multifactorial and often communication-driven. Improving referral workflows, expanding interoperability participation, and enhancing inter-professional coordination may reduce delays and improve patient outcomes.