PP-T-05

FOLLICULAR THYROGLOBULIN ANTAGONIZES THE ACTION OF TSH AND REGULATES THE EXPRESSION AND LOCALIZATION OF THE NOVEL IODIDE TRANSPORTER SLC26A7

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OBJECTIVES
Thyroglobulin (Tg) stored in the follicular lumen serves as a potent negative feedback regulator of follicular function that controls the expression of thyroid-specific genes. Recently, SLC26A7, a novel gene responsible for congenital hypothyroidism, was identified as an apical iodide transporter of thyrocytes. In this study, we examined the effects of TSH and follicular Tg on the expression and localization of SLC26A7.

METHODOLOGY
Rat thyroid FRTL-5 cells were stimulated by TSH or follicular concentrations of Tg. SLC26A7 mRNA and protein expression levels were evaluated using real-time PCR and Western blotting, respectively. Changes in subcellular localization of SLC26A7 in FRTL-5 cells and rat thyroid tissue sections were analyzed using confocal laser scanning microscopy.

RESULTS
TSH suppressed both mRNA and protein levels of SLC26A7, while it translocated SLC26A7 from the perinuclear area to the cell membrane. Tg also suppressed mRNA and protein levels of SLC26A7. However, Tg inhibited the ability of TSH to induce the plasma membrane localization of SLC26A7. In rat thyroid sections, SLC26A7 localization was inversely correlated with that of follicular Tg.

CONCLUSION
We have demonstrated that both TSH and follicular Tg suppressed the expression of SLC26A7. However, Tg inhibited the action of TSH to localize SLC26A7 to the plasma membrane both in vitro and in vivo. These results corroborate our hypothesis that the function of individual follicles is strongly regulated by the level of Tg accumulated in the follicular lumen.

PP-T-06

LANDSCAPE OF THYROID CARCINOMA: DIAGNOSTIC VALUE AND MANAGEMENT. RETROSPECTIVE STUDY OF A SINGLE CENTRE 2019-2021 (PART 2)

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OBJECTIVES
Ultrasound imaging and fine-needle aspiration (FNA) are the mainstays in evaluating thyroid nodules. There is a substantial lack of recent data on thyroid carcinoma.

This study aimed to determine the effectiveness of the Green Corridor and to collect the data on the diagnosis of thyroid carcinoma by FNA and confirmation after surgical intervention.

METHODOLOGY
We conducted a retrospective observational study on patients sent to the Green Corridor (code Z03.173) RECUH between 2019 to 2021. Data on FNA, treatment, thyroid cancer types and comorbidities were collected after surgery. We compared the efficiency of cytological (starting from Bethesda III, atypia of undetermined significance or follicular lesion of uncertain significance) and histological thyroid cancer diagnoses and analyzed the efficiency of the Green Corridor. Statistical analysis was conducted using IBM SPSS.

RESULTS
We included data from 563 patients. Thyroid cancer was confirmed in 153 (27.2%, women 80.4%). Surgical intervention (total thyroidectomy or hemithyroidectomy) and histologic confirmation of thyroid cancer was done in 147 patients. Four patients (2.6%) underwent radiation therapy, and two (1.3%) received palliative care due to an inoperable condition. FNA results of malignancy coincided with histological analysis in 114 patients (77%). In 84 (73.7%) patients, FNA malignancy type coincided with the histological analysis.

CONCLUSION
The Green Corridor has been shown to be effective based on the histological confirmation of thyroid cancer. FNA has proven its high diagnostic value in combination with cost-effectiveness and minimal invasiveness.