PP-T-15

GRAVES' DISEASE COMPLICATED BY POST-OPERATIVE GRAVES' OPHTHALMOPATHY AND PRETIBIAL MYXEDEMA

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BACKGROUND
The prevalence of Graves' Ophthalmopathy (GO) and pretibial myxedema is 0.15/10,000. We report a rare case of Graves' disease (GD) with development of GO and pretibial myxedema post-thyroidectomy which improved following treatment with teprotumumab.

CASE
A 51-year-old female presented with tachycardia, heat intolerance, and weight loss. She had undetectable TSH, elevated free T4 (6.1 ng/dL), total T3 (332.4 ng/d), TSI (19.50 IU/L), and TRAb (27 U/L; normal value <1.0 U/L). She denied any eye symptoms and did not have exophthalmos. She has an enlarged, hypervascular thyroid on neck ultrasound. She was treated with atenolol and methimazole to achieve euthyroidism. She eventually elected total thyroidectomy. Within 3 months after thyroidectomy, she developed exophthalmos and pretibial myxedema characterized by hyperpigmentation with the presence of firm papules and scattered coalescent plaques on the anterior aspects of both lower extremities. Skin biopsy confirmed pretibial myxedema. She was treated with teprotumumab with significant improvement of both GO and pretibial myxedema.

CONCLUSION
The occurrence of GO and pretibial myxedema in a patient with GD post-thyroidectomy is uncommon. Pretibial myxedema occurs because of the deposition of glycosaminoglycans (GAG) secreted by fibroblasts which have been found to express thyroid stimulating hormone receptors (TSHR) leading to deposition of mucin in the papillary and reticular dermis. Despite thyroidectomy, the thyroid antibodies themselves may lead to the accumulation of GAG. In fact, thyroidectomy does not affect the course of GO. Pretibial myxedema management depends on the symptomatology. Topical or intralesional glucocorticoids are used to treat symptomatic cases, though there is a 30% chance of recurrence. Teprotumumab has been approved to treat GO and only case reports of its use leading to improvement of pretibial myxedema have been described. More data are needed to determine its efficacy as a treatment option for pretibial myxedema.

PP-T-16

THYROID HEMIAGENESIS ASSOCIATED WITH POSSIBLE HASHIMOTO'S THYROIDITIS IN THE REMAINING LOBE PRESENTING AS LATE-ONSET HYPOTHYROIDISM IN ADULTHOOD

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BACKGROUND
Thyroid hemiagenesis is a very rare abnormality, usually discovered incidentally during the evaluation of unrelated thyroid disorders. In thyroid hemiagenesis, the left lobe tends to be absent with concomitant compensatory enlargement of the opposite lobe. Thyroid hemiagenesis *per se* is typically not associated with hypothyroidism. Here, we present an unusual case of thyroid hemiagenesis associated with possible Hashimoto's thyroiditis.

CASE
A 36-year-old Thai female with no known underlying disease presented with fatigue, chills, and weight gain for 6 months. She was given levothyroxine 75 µg/day based on results of her thyroid function tests at the previous hospital. However, her symptoms persisted. She denied family history of thyroid disorders and had no history of neck radiation. Initial blood tests at our hospital showed subclinical hypothyroidism (slightly elevated TSH level at 4.86 mIU/L; reference range 0.27-4.20 mIU/L) with negative thyroid auto-antibodies. Physical examination showed nonpalpable thyroid gland.

Her thyroid ultrasound revealed absent left thyroid lobe and atrophic right thyroid lobe with heterogeneous echotexture, compatible with possible Hashimoto's thyroiditis. FNA was no longer done to confirm the Hashimoto's thyroiditis. Levothyroxine was increased to 100 µg/day to keep her TSH level in the mid-normal range. During a 3-year follow-up period, the patient remains in a stable condition.

CONCLUSION
Thyroid ultrasonography should be performed in all patients with spontaneous hypothyroidism. Individuals with thyroid hemiagenesis are prone to develop additional thyroid pathologies. Close monitoring is required to detect concomitant disorders.

PP-T-17

PROPORTION AND FACTORS ASSOCIATED WITH THYROID DYSFUNCTION AMONG INDIVIDUALS REFERRED TO A TERTIARY CARE FACILITY IN KABUL, AFGHANISTAN

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OBJECTIVES
We aimed to determine the proportion and identify factors associated with thyroid dysfunction among individuals coming to a tertiary care facility in Kabul, Afghanistan.

METHODOLOGY
A cross-sectional study design was conducted from July to September 2018. Serum TSH levels were measured, and the patients were divided into three diagnostic categories according to their serum TSH concentrations: 1) Hypothyroidism 2) Hyperthyroidism 3) Normal thyroid function.

RESULTS
A total of 127 individuals were included. Majority of the study participants (77%) were females. Most of the participants (92%) did not have family history of thyroid dysfunction and majority of the female participants, (85%) were not pregnant in the last two years. Furthermore, 98% of participants were non-smokers.

CONCLUSION
The findings of the current study showed a high prevalence of thyroid dysfunction in individuals coming to FMIC for thyroid functions tests. The findings also indicated that age and smoking are the factors associated with thyroid dysfunction.

PP-T-18

TOWARDS EXCELLENCE IN THYROID SERVICE: AN ACCREDITED THYROID HOSPITAL

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OBJECTIVES
We described our experience at Theptarin, the first hospital in Thailand to achieve an accreditation in thyroid service from Thailand Healthcare Accreditation Institute in 2021.

METHODOLOGY
Our infrastructure fit the criteria of specific disease accreditation. The important components were availability of thyroidologists and multidisciplinary specialists in related fields, a large volume of patients with long-term follow-up, supporting facilities which include surgery and radioactive iodine ablation.

Key Performance Indexes (KPI) and evidence-based Clinical Practice Guidelines (CPG) for 3 common thyroid disorders (Graves' disease, thyroid nodule, and differentiated thyroid cancer) were created. Patient service was redesigned to be patient-centered and lean. Educational activities were organized for both healthcare professionals and the public. Patients' satisfaction was assessed. Research activities were also committed.

RESULTS
KPIs were set for 16 indicators. The consensus was reached for 7 CPG's. There were 12,150 visits by patients with thyroid disorders in 2021. The follow-up rate increased from 88.6% in 2019 to 98.5% in 2021. The rate of ultrasonography increased in patients with thyroid nodules (94.4% in 2019 to 98.5% in 2021). In patients with thyroid cancer, neither permanent hypoparathyroidism nor permanent recurrent laryngeal nerve injury occurred after surgery. Patients reported 86.9% satisfaction in 2021. Posters were displayed on world thyroid day and a multidisciplinary thyroid conference was organized. Eight researches in thyroid disorders were published in 2020-2021.

CONCLUSION
Accreditation for thyroid service is a testimony of excellence in patient care. It also serves as a model and set the stage for continuous improvement in outcome and safety of patient care.