and hypothyroidism 1.69%). The rates of subclinical hypothyroidism and hyperthyroidism were 5.5% and 1.4% respectively. The prevalence of positive thyroid antibodies, at least one of them was 28% in females and 14% in males (2:1 ratio). 97.3 % of subjects who testet negative for antibodies had normal thyroid function compared to 73.5% in antibodies positive group. There was a significant difference for subclinical hypothyroidism and other thyroid disorders between antibodies positive group and antibodies negative group (p value <0.0000119% of individuals(from 5047 examined) had normal thyroid function and resulted positive for anti TPO or anti TG. **Conclusions:** Undiagnosed biochemical thyroid dysfunctions were common in subjects living in a mild to moderate iodine-deficient area especially subclinical hypothyroidism. TSH level correlated well with the presence of antibodies resulting in significant difference in thyroid function between 2 groups. We found a high prevalence (19%) of thyroid antibodies in euthyroid subjects. TPO antibodies in euthyroid subjects can be used to identify subjects with increased risk for hypothyroidism such as women who are pregnant (to predict first trimester or postpartum thyroid dysfunction), patients with other autoimmune diseases, subjects on drugs like amiodarone or relatives of patients with autoimmune thyroid diseases.

Thyroid

FROM HYPO- TO HYPERTHYROIDISM

Interfering Medications in Older Adults on Thyroid Hormone Replacement: Who Is at Risk?

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Background: Thyroid hormone prescriptions have steadily increased in the past few years with levothyroxine being one of the most frequently prescribed medications in the United States. Population-based studies have shown that older age is a significant predictor for thyroid hormone initiation, with use continuing long-term. Thyroid hormone management in older adults is complicated by the presence of comorbidities and polypharmacy, particularly due to medications that can interfere with thyroid function tests. However, the prevalence of concurrent use of thyroid hormone and interfering medications in older adults and patient characteristics associated with this practice remain unknown. **Methods:** We conducted a population-based, retrospective cohort study of 538,137 thyroid hormone users aged ≥65 years from the Corporate Data Warehouse of the Veterans Health Administration (2004-2017). First, we described the prevalence of concurrent use of thyroid hormone and medications that commonly interfere with thyroid function tests (i.e., prednisone, prednisolone, carbamazepine, phenytoin, phenobarbital, amiodarone, lithium, interferon-alpha, tamoxifen). Then, we performed a multivariable logistic regression analysis to determine patient characteristics associated with concurrent use of thyroid hormone and at least one interfering medication during the study period. Covariates included in the model were patient age, sex, race, ethnicity and number of comorbidities. **Results:** Overall, 170,261 (31.6%) of patients were on at least one interfering medication while on thyroid hormone during the study period (median follow up 56 months). Non-white race [odds ratio (OR) 1.18, 95% confidence interval (CI) 1.15-1.21], compared to white race), Hispanic ethnicity (OR 1.11, 95% CI 1.08-1.14, compared to non-Hispanic), female sex (OR 1.12, 95% CI 1.08-1.15, compared to male sex), and presence of comorbidities (e.g. Charlson-Deyo Comorbidity Score ≥2, OR 2.47, 95% CI 2.43-2.52, compared to zero) were more likely to be associated with concurrent use of thyroid hormone and interfering medications. Older age (e.g., ≥85 years, OR 0.47, 95% CI 0.46 - 0.48, compared to age 65-74 years) was less likely to be associated with concurrent use of thyroid hormone and interfering medications. **Conclusions:** Almost one-third of older adults on thyroid hormone were taking medications that have been known to interfere with thyroid function tests. Our study highlights the complexity of managing thyroid hormone replacement in older patients, many of whom are at risk for adverse effects in the context of polypharmacy and comorbidities.

Thyroid

FROM HYPO- TO HYPERTHYROIDISM

Intravenous Thyroxine Administration in Hospitalized Patients, a Common but Unreported Practice: a Single Institution Recent Experience

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Background: Intravenous levothyroxine (IVT4) is FDA-approved for the treatment of myxedema coma (ME). ATA guidelines also acknowledge other rare situations, mostly such where oral/enteral access is compromised for prolonged periods, in which IVT4 may be appropriate. We noticed that at our hospital, IVT4 is administered more frequently than expected. **Aim of study:** To assess the extent of IVT4 administration, the indications for such a treatment, and its outcome at a tertiary facility. **Study design and Methods:** A retrospective study of IVT4 administered to adult inpatients at Tel Aviv-Sourasky Medical Center between January 2017 and July 2020. A list of dispensed T4 vials during the period of interest was generated from the hospital pharmacy computerized database. Patients' charts were searched for relevant clinical and laboratory data. **Results:** 107 patients (62 W/45 M), age 62.5±17.3 y (range 20-97) received IV T4, in the course of 113 hospitalizations. 94 subjects had primary hypothyroidism (PH), 10 had central hypothyroidism, while 3 subjects had no documented evidence of hypothyroidism. ME was likely ***in only 4 cases*** (3.5%). The leading stated indication for IVT4 was profound hypothyroidism in 57 instances (50.4%), jeopardized enteral route in 11 (9.7%), while no clear or justifiable indication was found in 39 cases (34.5%). An official endocrine consult backed treatment 74 times (65.5%). In subjects