with PH, median serum TSH prior to treatment was 36.4 mIU/L (IQR 8-42), while free T4 was 0.4 ng/dl (IRQ 0.22-0.61, normal 0.8-1.7). In subjects with no ME, altered consciousness was present in 19%, bradycardia in 6.3% and 4.5% were hypothermic. The median initial dose of IV-T4 was 150 μg (range 20-500). Repeated administrations ranged from 1 to 29 times, with a median cumulative dose of 250 μg (IQR 150-400, range 20-3300). We could not identify adverse events directly attributable to IV-T4. Of the 113 admissions, 61 ended in patient's recovery and discharge (54%), 22 (19.5%) in transfer to a rehab or nursing facility, while there were 30 cases of death (26.5%). Only one of the 4 patients with presumed ME died. In a logistic regression model, that also included age, gender, and ICU admission, the only variable that significantly predicted death was a need for artificial ventilation (OR:27.8, CI 3.5-189). In contrast, free T4, TSH, hospitalization length, altered consciousness, and other potential variables, were excluded from the equation. **Conclusions:** IVT4 administration is a common practice at our hospital. In a small minority of cases (13.2%), it is given for approved clinical conditions, while in all the others it appears to be unjustified. Reports on this practice are all but absent from the literature. Studies from other institutions are needed to determine its global extent, safety, and efficacy. Until it is proven safe and cost-effective, greater caution should be exercised before allowing it.

Thyroid

FROM HYPO- TO HYPERTHYROIDISM

Oral Liquid L-Thyroxine (L-T4) May Be Better Absorbed in Comparison to L-T4 Tablets in Patients With Lactose Intolerance

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In patients with lactose intolerance (LI), L-thyroxine (L-T4) malabsorption is often present, that leads to the necessity to use elevated L-T4 doses in the substitutional treatment of hypothyroidism. After excluding non-compliance, the differential diagnosis should include such disorders as LI, atrophic gastritis, coeliac disease, and others. In case of a diagnosis of LI, a low lactose diet and a lactose-free L-T4 preparation should be administered, to decrease the dose of the L-T4 formulation, and restore euthyroidism. We report the normalisation of circulating thyrotropin (TSH) levels in 8 patients with LI who received L-T4 tablets, after switching to an oral liquid lactose-free formulation. After switching from oral tablets to the liquid L-T4 (at the same dose, 30 minutes before breakfast) TSH was significantly reduced (TSH, evaluated 1-3 months after the switch, decreased: from 7.5±3.1 to 3.2±2.4 μIU/mL, P<0.05). The return back to tablets (at the same dosage, 30 minutes before breakfast) caused thyrotropin levels to worsen again. This result leads us to believe that the absorption of oral liquid formulation of thyroxine is greater in these patients. In conclusion, these data suggest that the L-T4 oral liquid formulation could bypass the issue of malabsorption in patients with lactose intolerance.

Thyroid

FROM HYPO- TO HYPERTHYROIDISM

Patterns of Body Weight Changes in Patients With Hypothyroidism, a Retrospective Study From Basrah, Southern Iraq

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Background: Weight gain is one of the most important hypothyroidism-related concerns among patients with hypothyroidism. However, not as expected, thyroxine replacement does not necessarily result in body weight (BWT) reduction among those patients. The study aimed to assess the patterns of BWT changes through time in patients with hypothyroidism. **Method:** A retrospective database study from Faiha Specialized Diabetes, Endocrine, and Metabolism Center. A total of 346 adult patients with hypothyroidism, 192 newly diagnosed and 154 known, who had 1 visit every 3 months, 5 visits per one year. From those patients, 116 new and 69 known had completd 9 visits per two years. Each visit involved thyroid-stimulating hormone (TSH) and BWT measurements. Patients with chronic liver or renal disease, diabetes mellitus, thyroid cancer, or other malignancies, pregnancy, and on steroid or hormonal therapies were excluded. The patients were further subdivided based on average TSH levels into controlled (TSH≤4.2 μIU/mL) and uncontrolled TSH>4.2 μIU/mL. Repeated measures ANOVA with a Greenhouse-Geisser correction and Post hoc tests using the Bonferroni correction were used to evaluate BWT changes through the study. **Results:** Both newly diagnosed and known hypothyroidism, over one and two years, in patients with average TSH>4.2 μIU/mL, BWT increased significantly through visits. For newly diagnosed over one year, ($F(2.41, 321.60) = 3.28$, $p = 0.03$), and mean BWT increase = 1.4 ± 0.38 kg from 3rd to 12th month visits, ($p = 0.004$). For newly diagnosed over two years, ($F(3.10, 263.89) = 9.08$, $P < 0.0005$), mean BWT increase = 3.02 ± 0.77 kg from 3rd to 24th month visits, ($p = 0.007$). And for known hypothyroidism over one year, ($F(2.56, 187.47) = 7.11$, $p = 0.0003$), mean BWT increase = 1.97 ± 0.64 kg at 12th month visit, and over two years, ($F(2.35, 77.56) = 4.67$, $P = 0.009$), mean BWT increase = 3.78 ± 1.26 kg at 24th month visit. While in all other patients with average TSH≤4.2 μIU/mL, the BWT changed non-significantly through visits. For newly diagnosed patients over one year and two years ($p = 0.10, 0.34$ respectively), and known patients over one year and two years ($p = 0.47, 0.34$ respectively). **Conclusion:** In contrary to what is believed, adequate treatment with thyroxine does not associate with weight reduction. Instead, either the patient kept on the same weight or continued to gain more weight.