Atypical Celiac Disease as Cause of Increased Need for Thyroxine: A Systematic Study.


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Abstract

Objective: Replacement T(4) dose in hypothyroid patients bearing both chronic autoimmune thyroiditis and atypical celiac disease (CD) has been analyzed. Design: Replacement T(4) dose has been analyzed in 35 hypothyroid patients with Hashimoto’s thyroiditis (HT) and atypical CD, as defined by the American Gastroenterological Association. We have evaluated the ability of the same dose of T(4) to reach target TSH in 21 patients before and during gluten-free diet (GFD). In the remaining 14 patients, noncompliant with GFD, we analyzed replacement T(4) dose and compared it with that in a similar group consisting of 68 patients with hypothyroid HT but no evidence of celiac sprue or other conditions interfering with T(4) absorption. Results: In patients with isolated HT, the desired serum TSH (median = 1.02 mU/liter) was reached in all patients after 5 ± 2 months of treatment at a median T(4) dose of 1.31 µg/kg · d. After a similar period and dose of T(4), higher levels of TSH (median = 4.20 mU/liter) were observed in patients with HT and CD. In 21 CD patients, target TSH (median TSH = 1.25 mU/liter) has been attained after 11 ± 3 months of GFD without increasing T(4) dose (1.32 µg/kg · d). In the remaining 14 patients, who were noncompliant with GFD, target TSH has also been achieved but at a higher T(4) dose (median = 1.96 µg/kg · d; +49%; P = 0.0002) than in hypothyroid patients without CD. Conclusions: Atypical CD increases the need for T(4). The effect was reversed by GFD or by increasing T(4) dose. Malabsorption of T(4) may provide the opportunity to detect CD that was overlooked until the patients were put under T(4) therapy.

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