



Subclinical hypothyroidism (sHT) in obese children the influence of L-thyroxin (LT4) treatment on metabolic comorbidities and a success of dietary therapy.

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The aim of the study was to evaluate does L-T4 treatment influence on dietary and behavioral therapy success in obese children with sHT.

MATERIAL & METHODS

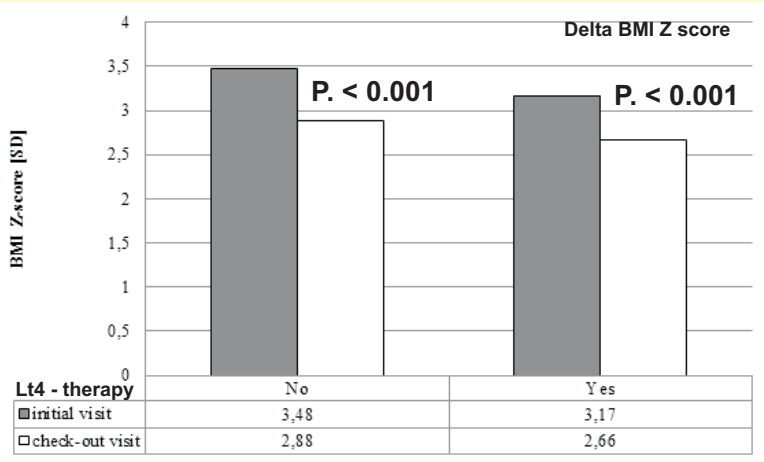
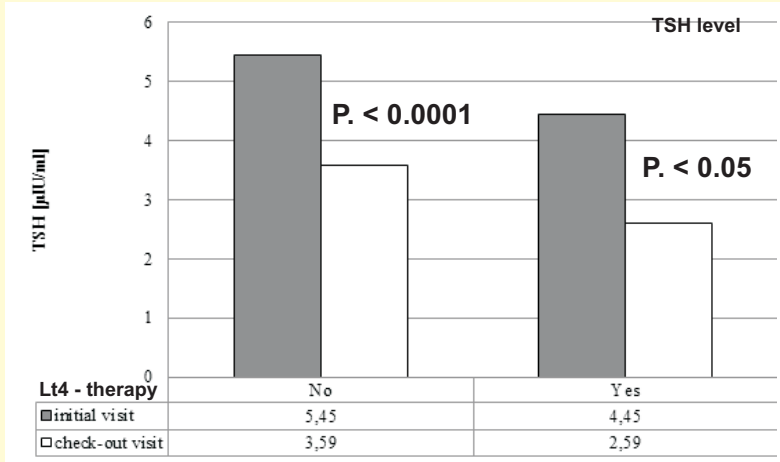
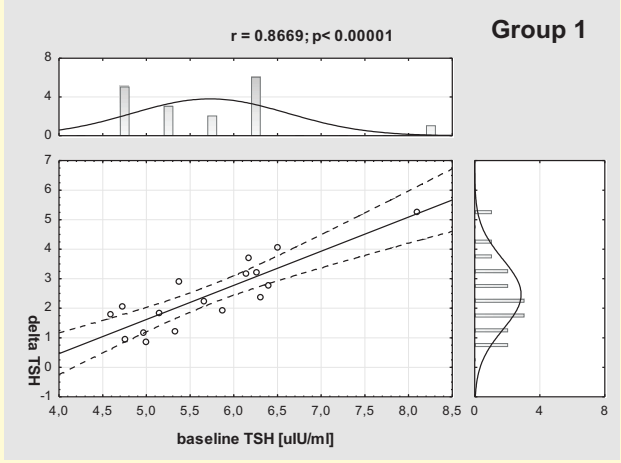
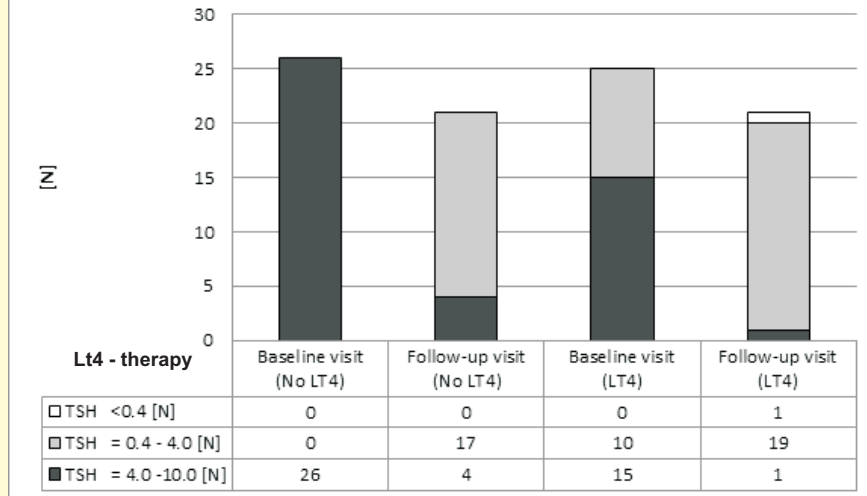
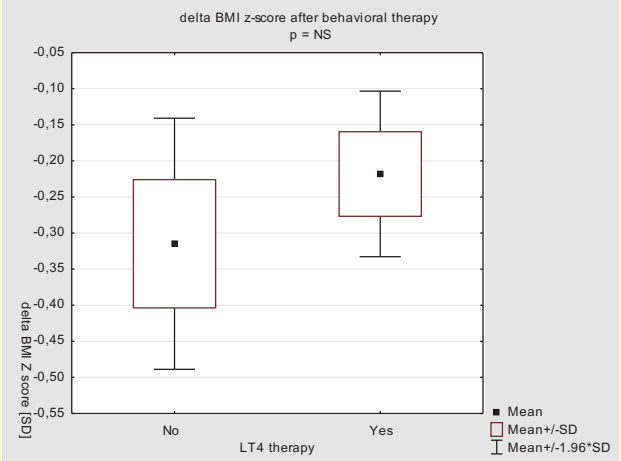
A total of 51 obese subjects with the diagnosis of subclinical hypothyroidism (TSH level between 4-10 µU/ml with normal FT4 and FT3) were identified and included to the study.

- **Group 1:** 26 children without LT4 therapy, treated only by dietary and behavioral counselling.
- **Group 2:** 25 children in which LT4 was introduced before the first visit by another parctitioners (pediatricians or pediatric endocrinologists).

Changes in anthropometric and hormonal data were analyzed at baseline and at the first follow-up visit after starting weight loss therapy.



	Group 1 (n = 26)	Group 2 (n = 25)	P value
At baseline visit			
Age (years)	10.0 ± 3.1	10.9 ± 3.0	0.324
Sex (M:F)	13:13	7:18	-
Weight (kg)	63.4 ± 23.0	62.4 ± 20.7	0.881
Height (cm)	147.1 ± 18.9	147.9 ± 14.9	0.870
BMI (kg/m ²)	28.2 ± 4.2	27.8 ± 5.6	0.774
BMI Z score (SD)	3.4 ± 1.11	2.9 ± 1.04	0.087
TSH (µU/ml)	5.45 ± 0.86	4.45 ± 2.37	0.052
At follow-up visit			
BMI (kg/m ²)	27.9 ± 4.2	27.4 ± 4.6	0.719
BMI Z score (SD)	3.17 ± 0,86	2.66 ± 0.92	0.072
TSH (µU/ml)	3.59 ± 1.01	2.59 ± 2.63	0.039



Conclusion: 1. sHT doesn't decrease the efficiency of dietary therapy in children. 2. The L-T4 treatment of sHT in children has no influence on efficiency of therapy. 3. The body mass reduction in obese children with sHT enables the normalization of TSH without the necessity of pharmacotherapy.