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HASHITOXICOSIS: A RARE DIAGNOSIS IN CHILDHOOD

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INTRODUCTION-AIM:

- ✓ Patients with Hashimoto's thyroiditis are often euthyroid or may experience subclinical or true hypothyroidism
- ✓ 5 to 10% of children may present however, a transient phase of hyperthyroidism, called Hashitoxicosis. This is caused by the release of stored, preformed thyroid hormones in blood circulation, due to thyroid gland infiammation
- ✓ Differential diagnosis from Grave's disease may be proved difficult to do and requires detailed history, physical examination, laboratory assessment and systematic follow-up.

Aim: The present three cases that highlight the diagnostic tools for the diagnosis of Hashitoxicosis and its distinction from Grave's disease.

PATIENTS-METHODS

Three female patients were referred to our department:

- ❑ The first 6 ½ y.o., suffered from Type I diabetes mellitus and during a checkup, severe hypothyroidism was detected due to Hashimoto's thyroiditis. Substitution therapy with L-Thyroxine was given. Subsequently she developed subclinical hyperthyroidism and then returned to hypothyroid status
- ❑ The second 9 ⁶⁄₁₂ y.o., passed from a hyperthyroidic phase to an euthyroidic one
- ❑ The third 12 ⁴⁄₁₂ y.o. , first experienced hypothyroidism, then subclinical hyperthyroidism and later became euthyroid

RESULTS

- ❖ **In all cases, thyroid ultrasound showed mainly structural gland heterogeneity**
- ❖ **The presence of positive TSI's in the first case, made it even more difficult to diagnose. For this reason, a Tc 99m scintigraphy was required, showing a diffuse and slightly increased intake in both lobes, entity compatible with Hashitoxicosis**
- ❖ **All three patients showed no evidence of clinical hyperthyroidism and were clinically checked every two weeks**
- ❖ **Subclinical Hyperthyroidism lasted from 30 to 90 days**

	1st visit	After 2 months	After 7 months	After 10 months	After 12 months
1st patient	1) **TSH:201,1** 2) FT4: 0,29 3) Anti-TPO: 96 4) Anti-Tg: 1193	1. **TSH: 1,49** 2. T4: 10,49 3. T4: 25 μg x1	1. **TSH: <0,01** 2. FT4: 2,50 3. Anti-TPO: 127 4. Anti-Tg:196 5. TSI: positive	1. **TSH: 34,63** 2. FT4: 0,79 3. T3: 143	
2nd patient	1) **TSH: 0,040** 2) FT4: 25,72 3) Anti-TPO: 69,7 4) Anti-Tg:226 5) TSI: negative	1. **TSH: 12,439** 2. FT4: 14,56 3. T4: 50 μg x1	1. **TSH: 2,94** 2. FT4: 17,78 3. T4: 50x1		
3rd patient Units : TSH in mIU /lt FT4 in ng/dl Anti-Tg, Anti-Tpo in IU/lt	1) **TSH: 7,68** 2) T4: 7,06 3) T3: 138 4) Anti-TPO: 219 5) Anti-Tg: 826	1. **TSH: 1,320** 2. FT4: 1,34 3. T4: 50 μg x1		1. **TSH: 0,083** 2. FT4: 1,34 3. Anti-TPO: 129 4. Anti-Tg: 2655 5. TSI: negative	1. **TSH: 1,330** 2. FT4: 1,18 3. Anti-TPO: 67,67 4. Anti-Tg: 1024

CONCLUSIONS

- **Hashitoxicosis is a rare event that needs to be recognized the earliest possible**
- **Tc 99m scintigraphy is not always necessary for the final diagnosis**
- **Prospective careful clinical monitoring is essential**
- **In patients with cardiovascular signs and symptoms, propanolol is recommended**

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