Very early onset of autoimmune thyroiditis in a toddler with multi-organ involvement


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BACKGROUND

In infants under 3 years of age acquired primary hypothyroidism caused by autoimmune thyroiditis is very rare. Hypothyroidism can manifest with different signs and symptoms and has a wide range of presentations from subclinical hypothyroidism to overt form.

OBJECTIVE

We describe a child with an unusual hypothyroidism presentation characterized by multi-organ involvement and related to acquired autoimmune thyroiditis during a very early period of life.

RESULTS

Thyroid-stimulating hormone (TSH), free thyroxine (fT4), free triiodothyronin (fT3) were >200 µIU/mL, 1.39 pg/mL and 0.5 pg/mL, respectively.

The levels of thyroid peroxidase antibodies and thyroglobulin antibodies were high (2017 IU/L and 1743 IU/L, respectively); sonoagraphic thyroidal evaluation demonstrated normal anatomy with non-homogeneous echotexture.

Because the neonatal screening for congenital hypothyroidism was normal, a diagnosis of hypothyroidism related to autoimmune thyroiditis was determined. The thyroxin replacement therapy normalized all the clinical and biochemical abnormalities (Fig.1,2).

CONCLUSIONS

Our case could give useful learning points:
1. although the screening for congenital hypothyroidism is routinely performed, a severe hypothyroidism (for example due to autoimmune thyroiditis) can anyway occur early in life and the clinicians should consider this possibility;
2. hypothyroidism can have a misleading and multi-face clinical presentation: anemia, rhabdomyolysis and high creatinine levels should always include the hypothyroidism in the differential diagnosis;
3. thyroxine replacement therapy is able to revert all the clinical manifestations related to the hypothyroidism but close follow-up of cognitive development is needed;
4. evaluating the patient’s previous pictures could play an important role in resolving a diagnostic conundrum

REFERENCES


There are no conflict of interest to disclose.