INTRODUCTION

Infants of mothers with autoimmune hypothyroidism (AH) are at risk of showing late-onset hypothyroidism, often not recognizable at newborn screening. Thyroid inhibiting antibodies can pass through the placenta. It is currently unclear if they may affect the newborn's thyroid function causing hypothyroidism.

AIM

To evaluate the prevalence of AH in the mothers of children born in Veneto Region, Italy.

To verify the utility of the serum thyroid function test in newborns born from mothers with AH.

METHOD

All newborns born at term, with mother suffering from AH and with negative neonatal screening for congenital hypothyroidism (CH), were tested for serum thyroid function by measurement of free thyroxine (T4), thyroid stimulating hormone (TSH) and antibody state (TPOAb, TgAb, TRAb) in 15th-20th day of life.

In the same session a second dried blood spot was collected. Data concerning maternal replacement therapy with L-thyroxine during pregnancy were retrospectively collected.

CONCLUSIONS

The prevalence of maternal AH in Veneto Region (Italy) is 1:29. It is not a rare condition and the management of these newborns needs to be carefully defined. We suggest that newborns born to mothers affected by AH should be submitted to only a 2nd dried blood spot between 15-20 days of life. If hormone values result in the normal referring range, no additional test should be performed. This method is preferable to blood test because it is economically more advantageous and less invasive for the newborns.

REFERENCES


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