

Neonatal hyperthyrotropinemia Watchful waiting versus treatment

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Introduction

Neonatal hyperthyrotropinemia (HT) is defined by elevated TSH and normal FT4.

HT is an increasingly common diagnosis and may be transient or permanent.

There is often a diagnostic dilemma whether to treat to prevent subclinical hypothyroidism or to wait thereby avoiding the risks of iatrogenic hyperthyroidism.

Objectives and methods

A large population of infants referred to a tertiary centre were reviewed over one year to determine the prevalence, sex distribution and natural course of neonatal hyperthyrotropinemia.

A one year retrospective study was conducted at Great Ormond Street Hospital between 2012-2013.

Neonates with an abnormal screening test and a raised TSH(6- 20mU/l) and a normal FT4 on confirmatory tests were included.

149 babies were referred to the hospital with abnormal newborn screening tests.

123 had congenital hypothyroidism, 26 had neonatal hyperthyrotropinemia.

TFT's were tested every 2 weeks in neonates with HT.

Information was provided to parents about the importance of testing.

Methods

Thyroid antibodies were evaluated in all babies with HT and were found to be negative.

Thyroid scan was done when TSH was more than 15mU/L and showed dysharmonogenesis in one baby.

A male predominance (17/26) was noted in this study.

HT resolved in 8 weeks in 17 babies and in 12 weeks in 3

6 babies were started on thyroxine

Conclusions

A diagnosis of HT was made in 17% of babies evaluated for an abnormal screening test in this study.

In most cases HT appears to be transient, resolving in 76%.

In the event of TSH rising above 20mU/L, TSH remaining static or TSH and FT4 decreasing correspondingly we started treatment (24%).

We recommend watchful waiting in neonatal hyperthyrotropinemia.

