Triiodothyronine in pregnancy-Does it really harm the foetus?

Sidrah Khan, Trevor Wheatley (Princess Royal Hospital, Brighton and Sussex University Hospital NHS trust)

Background

Untreated hypothyroidism is associated with fetal loss, gestational hypertension, placental abruption, poor perinatal outcome and severe neurodevelopmental delay. The offsprings of women who have serum free thyroxine (T4) concentrations in the lowest 10% of the reference range in the first trimester of pregnancy have significant neurodevelopmental delay.

Case report

- 36 years old female.
- Diagnosed with Primary hypothyroidism (10 years ago).

Results

Hormonal Profile During Pregnancies

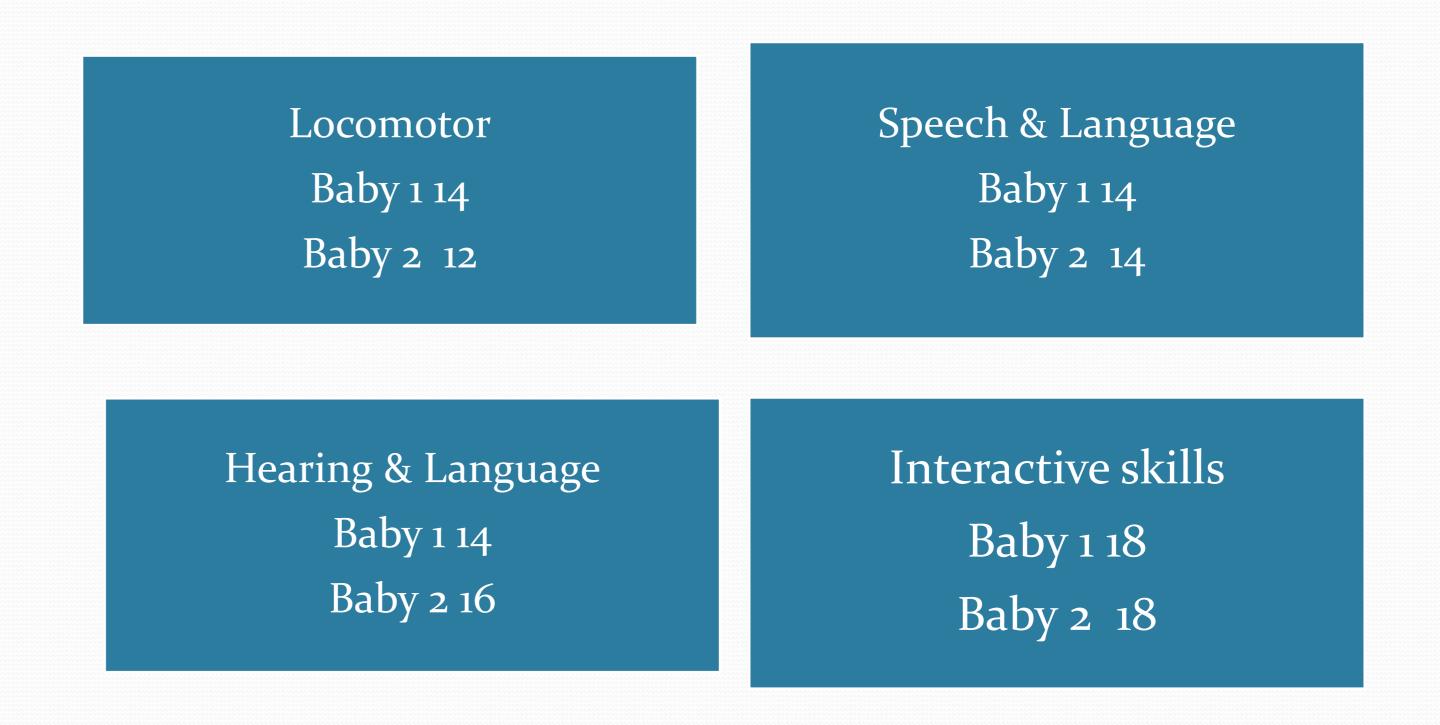
	T3(pmol/l)	T4(pmol/l)	TSH(mU/l)
1 st Pregnancy	6.4	0.6	0.06
2 nd Pregnancy	5.4	1.1	0.00

- BIRTH WEIGHTS Baby 1 3065 grams 3685 grams Baby 2
- Attended the antenatal clinic 2 years after diagnosis.
- Treated only with Liothyronine (T3) although was advised to be on Levothyroxine during pregnancies.

Conclusions

- Literature search did not identify any cases where T₃ only was given during all trimesters of pregnancy.
- This case has clearly shown normal neurodevelopment in both siblings. Maternal serum T₃ concentrations were maintained within reference range while her serum T4 concentrations were very low i.e <2 pmol/l in both pregnancies.

- Neurodevelopment at 27 months equivalent to 30 months of age(GL assessment)



Manipulative skills

These pregnancies may challenge current dogma regarding thyroid hormone treatment during pregnancy.

References

info@gl-assessment.co.uk Thyroid function and human reproductive health. Endocr Rev 2010;31:702-55



School Performance 2015

Attitude to learning and performance Child 1- year 3 outstanding report Child 2- year 1 outstanding report

