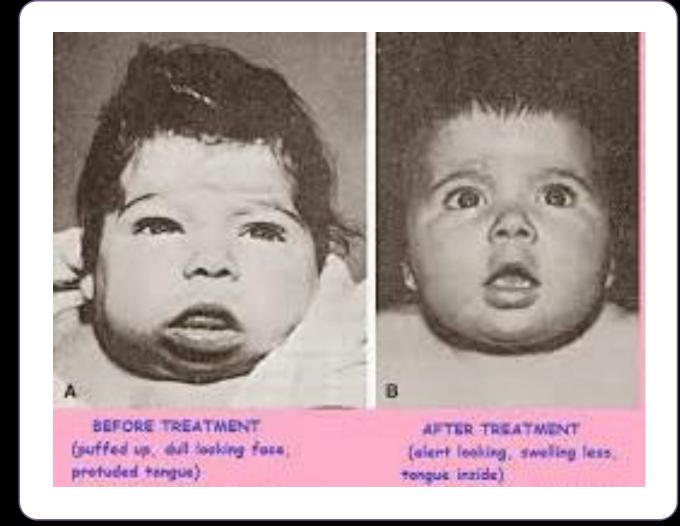
Congenital hypothyroidism

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A 5 day old baby, term, referred with TSH 150 lu/ml (very high) fT4 6 pg/ml (very low), how do you approach this problem?

- TFT repeated on same day showed same values, no signs of cretinism.
- DDX: agenesis (most common)/ectopia/dyshormonogenesis
- Scan revealed athyreosis (ultrasound can be enough)
- Never delay treatment to do imaging, start as soon as possible
- Treatment started
- TFT normalized in 4 weeks, kept so for 12 mths with progressive increase in dosing

 Not all patients with congenital hypothyroidism will present with cretinism at birth, that is why screening is essential in the first 3-5 days of life.



- All neonates with high TSH concentrations should be examined carefully for congenital malformations (particularly cardiac) and for dysmorphic features
- L-T 4 treatment should be initiated as soon as possible and no later than 2 weeks after birth or immediately after confirmatory serum test results in infants in whom CH is detected by a second routine screening test.
- An initial L-T4 dose of 10–15 µg/kg per day should be given

• How do you monitor the treatment?

- TSH concentration should be maintained in the age specific reference range; FT4 concentration should be maintained in the upper half of the age-specific reference range.
- Any reduction of L-T 4 dose should not be based on a single increase in FT4 concentration during treatment.
- The first follow-up examination should take place 1–2 weeks after the start of L-T 4 treatment.
- Subsequent evaluation should take place every 2 weeks until a complete normalization of TSH concentration is reached; then every 1 to 3 months thereafter until the age of 12 months. Between the ages of one and three years, children should undergo frequent clinical and laboratory evaluations (every 2 to 4 months). Thereafter, evaluations should be carried out every 3 to 12 months until growth is completed.

- More frequent evaluations should be carried out if compliance is questioned or abnormal values are obtained.
- Additional evaluations should be carried out 4–6 weeks after any change in L-T 4 dose or formulation.
- Adequate treatment throughout childhood is essential and overtreatment should be avoided

- Very important to do regular growth assessment using age and gender appropriate charts.
- In addition, proper assessment of the development regularly.

Thank You