

## IMAGES IN PEDIATRIC ENDOCRINOLOGY

**Congenital Goiter in Premature Twins Due to Propylthiouracil Treatment**

A 26 year-old-mother was diagnosed with Graves' disease in the first trimester and propylthiouracil 300 mg/day was started at 12 weeks and continued until term. Maternal thyroid function tests at diagnosis: TSH 0.06  $\mu$ IU/ml (normal: 0.5-4.8), free T<sub>4</sub> 43.8 pg/ml (normal: 8-23), free T<sub>3</sub> 14.6 pg/ml (normal: 2-4). She delivered goiterous twin infants at 32 weeks of gestation by Caesarean section. The twins were dizygotic boys. The first baby was delivered with a birth weight of 1,120 g (10-25<sup>th</sup> percentile), length 39 cm (50<sup>th</sup> percentile), and occipital frontal circumference of 26 cm (3<sup>rd</sup> percentile), and the second with a birth weight of 1,590 g (50-75<sup>th</sup> percentile), length 43 cm (75<sup>th</sup> percentile), and occipital frontal circumference of 28 cm (25-50<sup>th</sup> percentile), as expected for their degree of prematurity. Hypoactivity, constipation and apneic episodes were observed in the infants, and thyroid function tests with sonographic evaluation were studied after 4 days: TSH 368  $\mu$ IU/ml (normal: 0.8-6.9), free T<sub>4</sub> 3.51 pg/ml (normal: 8-23), thyroid volume 3.12 ml (normal: 0.22-0.42) in the first infant, and TSH 368  $\mu$ IU/ml, free T<sub>4</sub> 2.82 pg/ml, thyroid volume 5.53 ml in the second. Maternal thyroid antibodies were also measured at delivery: thyroid peroxidase antibody 0.02 U/ml (normal: 0-30), antithyroglobulin antibody 15.5 U/ml (normal: 0-70), TSH receptor antibody 2 U/l (normal: 0-10).

L-Thyroxine therapy (10  $\mu$ g/kg/day) was administrated to the infants for hypothyroidism. Free T<sub>4</sub> and TSH levels were obtained monthly. At follow-up, the goiter in the twins had disappeared after 6 months. L-Thyroxine was then discontinued and there was no evidence of hypothyroidism.

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