

Diseases of the thyroid gland are very common, affecting about 5% of inhabitants, mainly woman. Pregnancy influences thyroid function in multiple ways. In normal pregnant women, the thyroid gland maintains euthyroidism with only minor fluctuations in serum FT4 and TSH. However, in women with limited thyroid reserve hypothyroidism can develop.

We had a study group with 1720 pregnant woman coming to screening of Down syndrom in 1.trimester of pregnancy. By their agreeing we investigated levels of TSH, anti TPO, resp. FT4.

Gestational hyperthyroidism is uncommon, low level of TSH may be caused by high concentration of hCG, thyrotropic activity of this hormon is well known. In study group were 62 pregnant woman (3,6%) with TSH < 0,1 mU/l and 10 (0,58%) with FT4 > 22 pmol/l. In group with low TSH (<0,1 mU/l) was arithemic mean of free hCG (120,4 ug/l) significantly higher than in groups with normal or higher TSH level (63,2 resp. 64,9 ug/l).

Hypothyroidism is predictive of reduced neonatal and child neuropsychological development and maternal obstetric complications. We found an elevated serum TSH concentration (TSH > 4,0 mU/l) in 5,0 % of 1720 pregnant women. Ten of those 85 (10,6%) women had concentration of FT4 < 10 pmol/l.

Postpartum thyroid dysfunction (PPTD) is associated with antithyroid peroxidase antibodies (anti TPO) in early pregnancy. We found that 12,7% had anti TPO values of > 100 kU/l at 1.trimester of pregnancy.

This study should help define the significancy of universal screening (either with TSH, anti TPO, FT4 or some combination) for health of pregnant woman and their babies.

I think screening for thyroid dysfunction in pregnancy should be considered