

The importance of maternal thyroxine for the development of the fetus brain early in pregnancy has received increasing acceptance. It has more recently become evident that maternal hypothyroxinemia results in the birth of children with decreased mental and psychomotor development.

In our group of 7,530 women in 9-11 week of pregnancy were determined TSH, anti TPOAb and FT4. For evaluation of results was necessary to set reference intervals for pregnant women.

The TSH reference interval was determined to be 0.06 - 3.67 mU/l and for FT4 9.8 - 23.43 pmol/l was used. The limit for anti-TPO positivity was determined to be 143 kU/l.

A raised concentration of TSH was found in 5.14% of women; and a suppression of TSH was found in 2.90% of women and 11.5% of pregnant women were found positive.

Serum concentrations of FT4 were lower in TPOAb positive as compared to TPOAb negative women and differences of FT4 in euthyroid women with suppressed, normal and elevated TSH were found.

(...)

In Czech Republic, case finding screening is able to disclose only about 20% of asymptomatic mild or deep hypothyroidism or women with positive anti TPO in pregnancy. Foreign study report 70% of these high-risk pregnant women, consequently is evident need of general screening of pregnancy thyroid failure in Czech Republic. Moreover the investigation of TSH, FT4 and anti TPO together is necessary.