Individualized monthly follow-up during pregnancy, of women with autoimmune asymptomatic thyroid disease

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Context: autoimmune thyroid disease is a very outspread disease in the western part of Romania, an iodine replete area. Cases with pregnancy are autoimmune thyroid disease are seen more often in the daily endocrinology practice. Proper thyroid hormone levels are needed during pregnancy, regardless the preconception degree of maternal hypothyroidism.

Objective - To evaluate the evolution, of pregnancy and offspring outcome, in preconception diagnosed cases with asymptomatic autoimmune thyroid disease;

Methods - Patients: 109 cases with know autoimmune asymptomatic thyroid disease, defined as TSH < 4.5 mUI/L. They became pregnant starting January 2011 and gave birth until July 2014. Control group = aged matched, gestational age matched apparent healthy women.

Intervention - monthly evaluation of TSH, FT4, FT3 starting the moment of pregnancy confirmation, until 2 months postpartum. Supplemental therapy with tetraiodothyronine, was recommended in cases with suboptimal TSH value (> 2.5 mUI/L - 1st trimester, > 3 mUI/L in 2nd and 3rd trimester). Thyroid ultrasound evaluation was performed in the 1st and 3rd trimester, and at 2 month postpartum.

Main Outcome - evaluation of offspring parameters at birth: length, weight, Apgar score.

Results - Suboptimal TSH values were seen during the 1st trimester of pregnancy in 101/121 evaluated cases. Therapy was initiated in all these cases. The supplemental dosage was monthly titrated, if needed, with a mean of 20.25 mcg/day (1st month), 32.06 mcg/day (2nd month), 40.393 (3rd month), 45.138 mcg/day (4th month) up to 50.463 (9th month).

Other 6 cases needed therapy starting only the 2nd trimester.

In the whole study group, we observed 2 premature births, 34 and 36 gestational week, both in cases with no compliance in the monthly evaluation.

Off sprint evaluation: Birth gestational age = 38.5±0.7 week versus 39.7±0.5 week in controls, p=0.785;

Apgar score 9.5±1.1 week versus 9.3±0.8 week in controls, p=0.763; length 51.3±8.7cm versus 52.0±9.2cm in controls, p=0.456; weight 3280 ± 743 gr versus 3200 ± 715 gr in controls, p=0.122. Monthly-personalized LT4 dosage permits excellent pregnancy development. Postpartum evaluation showed 68 cases with clinical hypothyroidism. We observed 5 cases of postpartum hyperthyroidism.

Conclusions - Active follow up is needed, in order to have a proper evaluation of pregnant women with preconception asymptomatic autoimmune thyroid disease. Teamwork is needed in order to assured patients compliance.