Development of Autoimmune Overt Hypothyroidism Is Highly Associated With Live Births and Induced Abortions but Only in Premenopausal Women - DTU Orbit (01/12/2018)

Context: The 1-year postpartum period is often accompanied by increased risk for thyroid disease. Objective: The objective of the study was to investigate the role of reproductive risk factors in the development of autoimmune overt hypothyroidism in the years after the 1-year postpartum period. Design, Setting, and Subjects: In a population study, we included Danish women with new autoimmune overt hypothyroidism not diagnosed within the first year after a pregnancy (n = 117; median age 53.0 y) and age-and-region-matched euthyroid controls from the same population (n = 468). Main Outcome Measures: In conditional multivariate logistic regression models, we analyzed the associations between the development of autoimmune hypothyroidism and age at menarche/menopause, years of menstruations, pregnancies, spontaneous and induced abortions, live births, and years on oral contraceptives and postmenopausal hormone replacement therapy, also taking various possible confounders into account. Results: In multivariate regression models with no event as reference, the odds ratios (ORs) for hypothyroidism [95% confidence interval (CI)] after one/two/three or more live births were 1.72 (0.56-5.32)/3.12 (1.14-8.48)/4.51 (1.65-12.3) and 1.02 (0.57-1.81)/2.70 (1.27-5.75) after one/two or more induced abortions. Findings were valid only for women having hypothyroidism diagnosed before the age of 55 years. We found no association between disease development and other reproductive risk factors investigated. Conclusions: Previous live births and induced abortions were major risk factors for the development of autoimmune overt hypothyroidism in women aged up to 55 years. The increased risk for hypothyroidism after giving birth extends longer than just to the 1-year postpartum period, and numbers of previous pregnancies should be taken into account when evaluating the risk of hypothyroidism in a young woman.

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