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Cesarean delivery: a predisposing factor for autoimmune thyroid disease in iodine replete women?

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Dear Editor,

Autoimmune thyroiditis (AT) is the leading cause of hypothyroidism in iodine-replete women. Postpartum thyroiditis is an another form of AT resulting in permanent thyroid dysfunction in 10 to 20% of the affected women.[1] Thyroid peroxidase antibodies (TPOAb) are associated with the postpartum thyroiditis and women with positive TPOAb have more severe symptoms.[2] A possible explanation of AT is concomitant with the persistence of fetal cells in maternal tissues, such as thyroid, and sustained inflammatory response due to chimeric cells in the tissue. [3]Although there is no described association between AT disease and delivery route, we hypothesized cesarean delivery may be a predisposing factor of AT due to the significantly increased fetomaternal hemorrhage during delivery compared to vaginal delivery. [4]It is possible increased translocation of fetal cells during delivery is possibly associated with the increased frequencies of maternal chimerism. We aimed to investigate this possible association in a retrospective cohort by screening a population of gravid, iodine-replete women visiting our outpatient gynecology clinic in the year 2016. Based on the voluntary participation, patients were offered a screening panel for thyroid dysfunction. Thyroid panel consisted blood test for thyroid stimulating hormone levels, free T4 hormone levels, TPOAb titers and urine test for iodine levels. This was a cohort of 280 gravid women