OPEN ACCESS Freely available online

Journal of Thyroid Disorders & Therapy

Short Communication

Endometriosis Patients have Found Higher Rates of Thyroid Dysfunction

Langlais Chen*

Department of Medicine, University of Peking, Beijing, China

ABOUT THE STUDY

Patients with endometriosis have been found to have higher rates of thyroid dysfunction and other autoimmune illnesses. An overlap in pathogenesis is indicated by the upregulated Thyroid Stimulation Hormone (TSH) receptors in ectopic endometrium and the higher serum titers of TSH receptor antibodies (TRAb) IgG in endometriosis patients. Cross-reactivity with other antibodies must be disregarded, though [1]. In order to assess the potential of TRAb IgG as a diagnostic marker for endometriosis, this study compared the expression of autoantibodies in women with endometriosis and two control groups. 172 women with endometriosis that had been surgically verified participated in this cross-sectional study, along with two control groups made up of 50 healthy blood donors and 114 women from the Malmö Offspring Study, which included members of the general public. AXIN1, thyroid hormone levels, TSH and TRAb autoantibodies, Follicle-Stimulating Hormone (FSH), Human Chorionic Gonadotropin (HCG), Luteinizing Hormone (LH), and their receptors autoantibodies were examined in serum [2].

The Visual Analogue Scale for Irritable Bowel Syndrome was used by the patients to rate their gastrointestinal symptoms while they responded to a questionnaire. Neonatal Thyroid Stimulating Hormone (nTSH) is a population-wide indicator of iodine dietary status. The WHO considers iodine sufficiency to be represented by a prevalence of fewer than 3% of nTSH levels greater than 5 mIU/L in samples taken within 72 hours of birth. An iodine-sufficient population's prevalence of nTSH levels over 5 mIU/L and its relationship to maternal, neonatal, and obstetric variables were the foci of this investigation. The study has found the Dexamethasone Suppression Test (DST) in 18 patients with Subaffective Dysthymia (SDT) and in 30 individuals with Character-Spectrum Disorder (CSD), two etiologically different types of early-onset primary dysthymia. Smaller subsamples of the patients (n=8, and n=7, respectively) were also examined for the TRH-TSH test. The percentages for aberrant DST and TRH-TSH test findings in SDT patients were 50% and 7%, respectively, while they were 0% and 7% in CSD patients [3-6]. Our results show that SDT is a subtype of early-onset onset primary dysthymia, which is a symptomatically milder form of primary affective illness that is clinically diagnosable and physiologically unique. The primary sign for examination is Thyroid Stimulating Hormone (TSH) of the thyroid gland activity. In human serum, the observed Limit of Detection (LOD) is on par with third-generation TSH laboratory analysis. The broad linear dynamic range of more than three orders encompasses the entire therapeutically pertinent TSH concentration range for sure quantitative diagnostics of gland function from hyperthyroidism to hypothyroidism, and various stages in between [7]. The appealing values of LOD and linear dynamic range result from numbering superparamagnetic nanolabels over the entire reaction volume *via* nonlinear magnetization at two frequencies of an alternating magnetic field and sensing the response at combinatorial frequencies [8,9]. The created immunoassay is both cost-effective and user-friendly, and it can be used for both express *in vitro* diagnosis and long-term quantitative tracking of thyroid dysfunctions, particularly in remote places, developing nations, and thinly populated areas.

Many per- and Polyfluoralkyl Substances (PFASs) have been linked to disruptions in mother thyroid hormone balance during pregnancy. Concerns should be made about PFAS exposure in expectant women because thyroid hormones play a role in foetal development. In this research, we evaluated the concentrations of 13 PFASs in blood from 123 pregnant women in Beijing, China, including five new short-chain PFASs. Linear regression models were used to examine the relationship between Thyroid-Stimulating Hormone (TSH) or Free Thyroxine (FT4) levels and PFAS concentrations while taking pregnancy-induced physiological variables into account. Perfluorobutanoic acid and perfluorodecanoic acid were discovered to be associated with TSH in Thyroid Peroxidase Antibody (TPOAb) negative women [10]. After controlling for various factors such as BMI, gestational weight increase, and maternal age, no relationship was identified between all PFASs and FT4 levels. These results indicate that more attention should be paid to the relationship between thyroid hormone levels and short-chain PFAS concentrations. Future research could include a larger group size and other clinical markers of thyroid function, such as free T3 and total T3.

Correspondence to: Langlais Chen, Department of Medicine, University of Peking, Beijing, China, E-mail: langlais@chen.cn

Received: 01-Mar-2023, Manuscript No. JTDT-23-23001; **Editor assigned:** 03-Mar-2023, PreQC No. JTDT-23-23001 (PQ); **Reviewed:** 21-Mar-2023, QC No. JTDT-23-23001; **Revised:** 29-Mar-2023, Manuscript No. JTDT-23-23001(R); **Published:** 06-Apr-2023, DOI: 10.35248/2167-7948.23.12.291

Citation: Chen L (2023) Endometriosis Patients have Found Higher Rates of Thyroid Dysfunction. Thyroid Disorders Ther. 12:291.

REFERENCES

1. Svensson A, Roth B, Kronvall L, Ohlsson B. TSH receptor antibodies (TRAb)–A potential new biomarker for endometriosis. Eur J Obstet Gynecol Reprod Biol. 2022;278:115-121.
2. Levaillant L, Huet F, Bretones P, Corne C, Dupuis C, Reynaud R, et al. Neonatal screening for congenital hypothyroidism: Time to lower the TSH threshold in France. Arch Pediatrie. 2022.
3. Martínez SG, García BP, Gomis AI, Álvarez ED, Torre EL. Neonatal TSH as a marker of iodine nutrition status. Effect of maternal ioduria and thyroid function on neonatal TSH. Arch. Pediatrie. 2022;97(6):375-382.
4. Rihmer Z, Szádoczky E. Dexamethasone suppression test and TRH-TSH test in subaffective dysthymia and character-spectrum disorder. J Affect Disord. 1993;28(4):287-291.
5. Wheatland R. Should the TSH test be utilized in the diagnostic confirmation of suspected hypothyroidism?. Med Hypotheses. 2010;75(5):458-463.
6. Znoyko SL, Orlov AV, Bragina VA, Nikitin MP, Nikitin PI. Nanomagnetic lateral flow assay for high-precision quantification of diagnostically relevant concentrations of serum TSH. Talanta. 2020;216:120961.
7. Krieger CC, Neumann S, Gershengorn MC. TSH/IGF1 receptor crosstalk: mechanism and clinical implications. Pharmacol Ther. 2020;209:107502.
8. Rønnov-Jessen D, Skov L, Faber J. Immunoradiometric assay of serum thyroid stimulating hormone (TSH) as a first-line test in a mixed hospital population. Clin Chim Acta. 1987;168(1):13-17.
9. Hu DS, Zhu SH, Liu WY, Pan XY, Zhu PW, Li YY, et al. PNPLA3 polymorphism influences the association between high-normal TSH level and NASH in euthyroid adults with biopsy-proven NAFLD. Diabetes Metab J. 2020;46(6):496-503.
10. Dendy J. Abstract# 1181889: TSH producing pituitary adenoma; an unusual cause of hyperthyroidism. Endocr Pract. 2022;28(5):S114.