

## **P93. The expression of paracrine factors in women with autoimmune thyroid diseases and reproductive failures.**

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### **Context**

Autoimmune thyroid diseases can lead to serious complications of pregnancy and can be combined with generalized autoimmune imbalance, in particular, in the endometrium. The imbalance in the regulation of the immunocompetent cells activity and the increase of cytokines production are one of the reasons for the failed implantation or disruption of embryo development with future consequences

### **Objective**

To assess the role of paracrine factors (expression of autoantibodies against cytokine receptors IL-1 alpha, IL-2, TNF-alpha, interferon-gamma) in the endometrium in women with autoimmune thyroid diseases and misscariages.

### **Methods**

The Immunohistochemical (IHC) expression of paracrine factors in endometrial tissue, which were graded semiquantitatively by considering the percentage and intensity of the staining. A staining index was calculated as the product of staining intensity and staining area.

### **Patients**

84 women, considering pregnancy, divided into 4 groups: 1- women with reproductive losses and hypothyroidism as outcome of Hashimoto disease, n =21, mean age - Me 34 [30; 37], 2- Ab-TPO positive women with a history of reproductive losses, n =21, mean age - Me 33 [30; 38], 3- women with reproductive failures without autoimmune thyroid disease, n =21, mean age - Me 30 [26; 35], 4- healthy women of the control group, n =21, mean age - Me 29 [27; 34].

### **Interventions**

In the second phase of the menstrual cycle was held endometrial aspiration using a gynecological set Pipelle de Cornier (Laboratoire C.C.D).

### **Main outcome Measures**

In comparative analysis in all 4 groups was negative expression of IL- 1 alpha and IL-2/CD 25 ( $p > 0,05$ ). Significant differences in the expression level of IFN gamma were observed in glands in the group with hypothyroidism and Ab -TPO positive women ( $p=0,06$  and  $p=0,001$  respectively) than in control group. Furthermore, a negative correlation of expression TNF alpha was observed between the group of women with autoimmune thyroid pathology and women with misscariage and normal thyroid function.

### **Results**

In the course of the research work was revealed an increased level of IFN expression in the group of women with with both hypothyroidism and Ab -TPO positive women.

### **Conclusion**

Expression of IFN gamma is helpful to assess the risk of a possible complication of pregnancy in women with autoimmune thyroid disease, but further research is required

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