TUXUMDONLAR POLIENDOKRIN METABOLIK SINDROMIDA TIREOID AUTOIMMUNITETNING ENDOKRIN – METABOLIK KO'RSATKICHLAR BILAN ASSOTSIATSIYASI

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Dolzarbligi. Tuxumdonlar poliendokrin metabolic sindromi reproduktiv yoshdagi ayollar orasida keng tarqalgan endokrin-metabolik buzilish bo'lib, giperandrogenizm, hayz sikli buzilishlari, insulin rezistentligi va ortiqcha tana vazni bilan kechadi. So'nggi yillarda tuxumdonlar poliendokrin metabolic sindromi bilan autoimmun tireoid jarayonlar o'rtasidagi bog'liqlik ilmiy jihatdan dolzarb masalalardan biri sifatida qaralmoqda. Tireoperoksidazaga qarshi antitanachalar — AT-TPO miqdorining oshishi tuxumdonlar poliendokrin metabolic sindromi kechishida qalqonsimon bez funksional holati va metabolik ko'rsatkichlar bilan bog'liq bo'lishi mumkin.

Maqsad. Tuxumdonlar poliendokrin metabolic sindromi bilan kasallangan ayollarda AT-TPO musbat bo'lishi tireoid gormonlar, tana massasi indeksi, insulin va HOMA indeksi bilan assotsiatsiyasini baholash.

Material va usullar. Tadqiqotga tuxumdonlar poliendokrin metabolic sindromi tashxisi qo'yilgan 42 nafar ayol kiritildi. Bemorlar AT-TPO darajasiga ko'ra ikki guruhga ajratildi: AT-TPO musbat guruh — 21 nafar**,** AT-TPO manfiy guruh — 21 nafar**.** AT-TPO ≥30 IU/ml musbat natija sifatida qabul qilindi. Bemorlarning TTG, T3, T4, TMI, insulin, HOMA indeksi va prolaktin ko'rsatkichlari tahlil qilindi. Guruhlararo farqlar Student t-testi yoki Mann–Whitney U testi yordamida, korrelyatsion bog'liqliklar Spearman usuli bilan baholandi. Statistik ahamiyatlilik $p<0,05$ deb belgilandi.

Natijalar. Umumiy guruhda AT-TPO darajasi 100,55 ± 180,08 IU/ml**,** TTG 2,63 ± 1,48, TMI 26,10 ± 3,73 kg/m²**,** insulin 12,90 ± 5,62**,** HOMA indeksi esa 2,76 ± 1,24 ni tashkil etdi. Guruhlararo tahlilda eng muhim farq TTG ko'rsatkichi bo'yicha aniqlandi: AT-TPO musbat guruhda TTG 3,16 ± 1,46, AT-TPO manfiy guruhda esa 2,10 ± 1,35 bo'lib, farq statistik jihatdan ishonchli edi **(**p=0,009). T4, T3, TMI, insulin, HOMA va prolaktin ko'rsatkichlari bo'yicha guruhlar o'rtasida ishonchli farq aniqlanmadi. Spearman tahlilida AT-TPO bilan HOMA indeksi o'rtasida zaif teskari korrelyatsiya qayd etildi **(**rho=–0,305; p=0,049**),** AT-TPO bilan insulin o'rtasida esa teskari bog'liqlikka moyillik kuzatildi **(**rho=–0,281; p=0,071**).**

Muhokama. Olingan natijalar tuxumdonlar poliendokrin metabolic sindromi bilan kasallangan ayollarda AT-TPO musbatligi, birinchi navbatda, tireoid tizimdagi funksional o‘zgarishlar bilan bog‘liq bo‘lishi mumkinligini ko‘rsatadi. AT-TPO musbat guruhda TTG darajasining manfiy guruhga nisbatan statistik jihatdan yuqori bo‘lishi (3,16 ± 1,46 ga nisbatan 2,10 ± 1,35; p=0,009) autoimmun tireoid jarayonlar tuxumdonlar poliendokrin metabolic sindromi fonida subklinik tireoid disfunksiya xavfini kuchaytirishi mumkinligini asoslaydi. Shu bilan birga, T3 va T4 darajalarida ishonchli farq aniqlanmagani bu o‘zgarishlar kompensatsiyalangan yoki erta bosqichda kechayotgan bo‘lishi mumkinligini ko‘rsatadi. TMI, insulin va HOMA ko‘rsatkichlari bo‘yicha guruhlararo farqlar statistik ahamiyatga ega bo‘lmagan bo‘lsa-da, AT-TPO bilan HOMA indeksi o‘rtasidagi zaif teskari korrelyatsiya **(**rho=–0,305; p=0,049**)** tireoid autoimmunitet va metabolik javob o‘rtasidagi munosabatni chuqurroq o‘rganish zarurligini ko‘rsatadi. Ushbu natijalar sabab-oqibat bog‘liqligini emas, balki PCOSda tireoid-autoimmun va metabolik ko‘rsatkichlar o‘rtasidagi assotsiativ munosabatni ifodalaydi.

Xulosa. Tuxumdonlar poliendokrin metabolik sindromi bilan kasallangan ayollarda AT-TPO musbat bo’lishi, avvalo, TTG darajasining oshishi bilan assotsiatsiyalandi. Bu holat autoimmun tireoid jarayonlar tuxumdonlar poliendokrin metabolik sindromi fonida qalqonsimon bez funksional holatiga ta’sir ko‘rsatishi mumkinligini ko‘rsatadi. Metabolik ko‘rsatkichlar bo‘yicha guruhlararo ishonchli farqlar aniqlanmagan bo‘lsa-da, AT-TPO va HOMA indeksi o‘rtasidagi zaif korrelyatsiya ushbu yo‘nalishda kengroq tadqiqotlar o‘tkazish zarurligini asoslaydi.

ASSOCIATION OF THYROID AUTOIMMUNITY WITH ENDOCRINE–METABOLIC PARAMETERS IN POLYENDOCRINE-METABOLIC OVARIAN SYNDROME

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Abstract.
Polycystic ovary syndrome is a common endocrine-metabolic disorder in women of reproductive age and may be associated with thyroid autoimmune processes. The aim of this study was to assess the association of thyroid autoimmunity with endocrine and metabolic parameters in women with polyendocrine-metabolic ovarian syndrome. The study included 42 women who were divided into two groups according to AT-TPO status: AT-TPO positive (n=21) and AT-TPO negative (n=21). Serum TSH, T3, T4, insulin, prolactin, body mass index and HOMA index were analyzed. AT-TPO positivity was defined as AT-TPO ≥30 IU/mL. Statistical analysis included Student’s t-test, Mann–Whitney U test and Spearman correlation analysis, with $p<0.05$ considered statistically significant. TSH levels were significantly higher in the AT-TPO-positive group compared with the AT-TPO-negative group (3.16 ± 1.46 vs. 2.10 ± 1.35; p=0.009). No significant between-group differences were found for T3, T4, BMI, insulin, HOMA index or prolactin. A weak inverse correlation was

observed between AT-TPO and HOMA index (rho=–0.305; p=0.049). These findings suggest that thyroid autoimmunity in women with polyendocrine-metabolic ovarian syndrome is primarily associated with increased TSH levels, while its relationship with metabolic parameters requires further investigation in larger studies.

Keywords: polyendocrine-metabolic ovarian syndrome, AT-TPO, thyroid autoimmunity, TSH, HOMA index, insulin resistance, body mass index.