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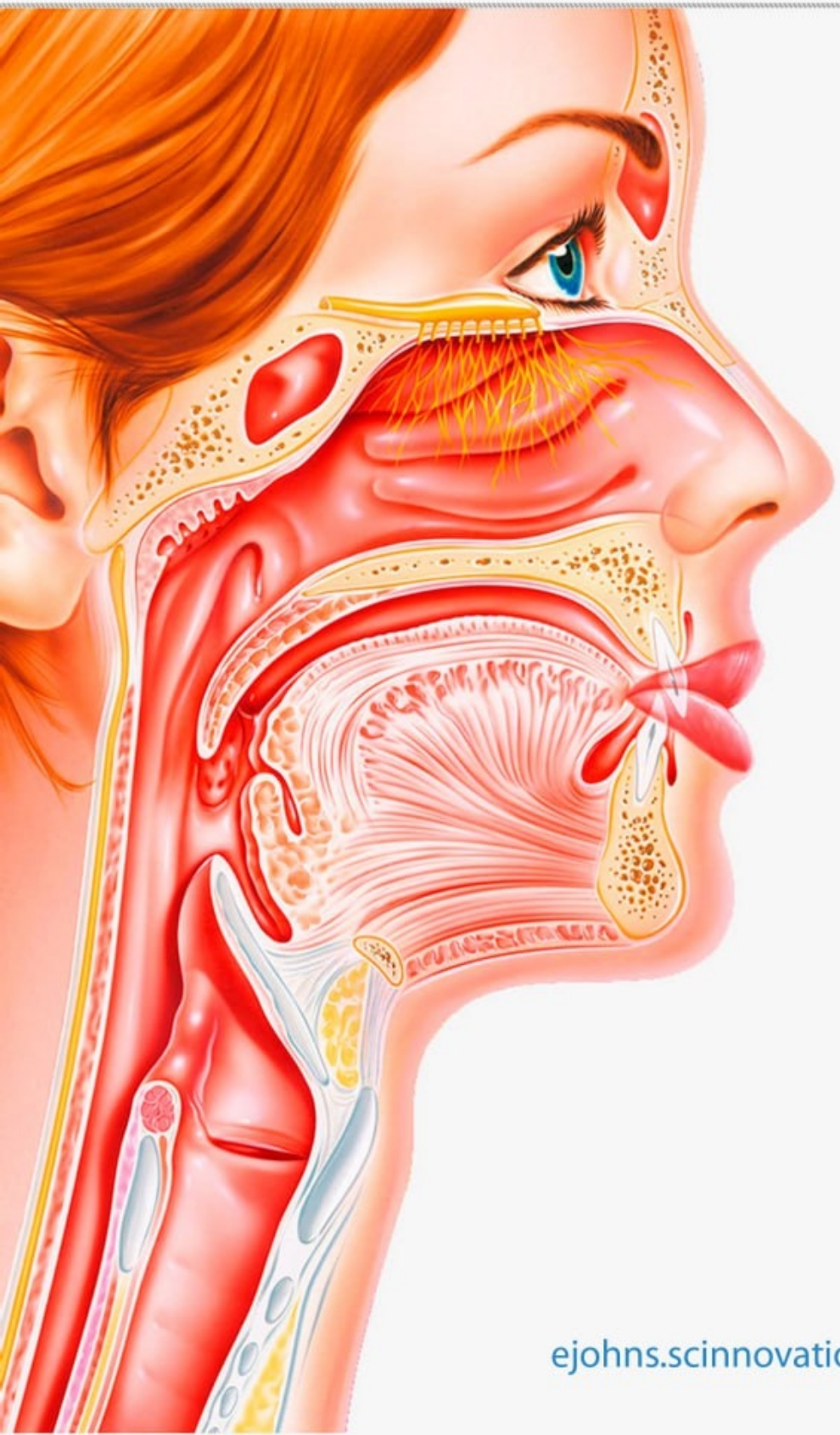

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RINOSINUSIT BILAN KECHUVCHI POLIANGIITLI GRANULEMATOZDA BUYRAKLAR SHIKASTLANISHINING ERTA LABORATOR BELGILARI

Xaydarova.G.S.[1], Djabborov.N.N.[1], Xidoyatova M.R.[1]

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Annotatsiya. Maqsad – rinosinusit bilan kechuvchi poliangiitli granulematoz (PG) bemorlarida siydik sindromi ko'rsatkichlarining buyrak ishtirokini erta aniqlashdagi laborator ahamiyatini baholash. Tadqiqotga PG tashxisi tasdiqlangan va klinik jihatdan rinosinusit bilan murojaat qilgan bemorlar hamda surunkali rinosinusitli nazorat guruhi kiritildi. Barcha ishtirokchilarda umumiy siydik tahlili bajarilib, miqdor, nisbiy zichlik, pH, leykotsituriya, eritrotsituriya va proteinuriya darajasi tahlil qilindi. PG bilan og'rigan bemorlarning 1–2-guruhlarida klinik simptomlar minimal bo'lishiga qaramay, mikrogematuriya, yengil proteinuriya va leykotsituriya tez-tez aniqlanib, buyraklar kopto'

kchalarini shikastlanishining erta belgilarini ifodaladi. Immunosupressiv davolashdan so'ng 3-guruhda siydik ko'rsatkichlari deyarli me'yorlashdi, bu esa o'z vaqtida qo'yilgan tashxisning ahamiyatini tasdiqladi. Xulosa qilib, oddiy umumiy siydik tahlilida qayd etilgan yashirin siydik sindromi rinosinusit fonidagi PG da buyrak ishtirokini erta aniqlash va oddiy LOR-patologiyalardan farqlash uchun arzon, lekin sezgir marker hisoblanadi.

Kalit so'zlari: poliangiitli granulematoz, rinosinusit, siydik sindromi, mikrogematuriya, proteinuriya, buyrak ishtiroki, umumiy siydik tahlili, erta diagnostika.

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EARLY LABORATORY INDICATORS OF RENAL INVOLVEMENT IN POLYANGIITIS GRANULOMATOSIS WITH RHINOSINUSITIS

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Abstract. To evaluate the role of urinary syndrome as an early laboratory marker of renal involvement in patients with granulomatosis with polyangiitis (GPA) presenting with rhinosinusitis. The study included GPA patients with dominant ENT manifestations and a control group with isolated chronic rhinosinusitis. All participants underwent routine urinalysis; urine volume, specific gravity, pH, leukocyturia, erythrocyturia and proteinuria were analysed in relation to disease stage and treatment. In the first and second GPA groups, asymptomatic microhaematuria, low-grade proteinuria and leukocyturia were detected in the majority of patients, indicating subclinical glomerular injury long before the onset of overt nephritic symptoms. After immunosuppressive therapy, urinary parameters in the third group almost normalized, confirming the reversibility of early changes. Simple urinalysis with careful interpretation of minimal urinary abnormalities therefore provides a cheap and sensitive tool for early detection of renal involvement in GPA-related rhinosinusitis and for timely referral to nephrology.

Key words: granulomatosis with polyangiitis, rhinosinusitis, urinary syndrome, microhaematuria, proteinuria, renal involvement, urinalysis, early diagnosis.

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USUL VA MATERIALLAR

Ushbu ishga poliangiitli granulematoz (PG) tashxisi tasdiqlangan va klinik jihatdan rinosinusit bilan namoyon bo'lgan bemorlar hamda surunkali rinosinusitli nazorat shaxslari kiritildi. Guruhlar tuzilishi umumiy dizayn bilan bir xil bo'lib, 1-guruhda 26, 2-guruhda 60, 3-guruhda 60 bemor, nazorat guruhida esa 20 sog'lom ko'ngilli bor edi. Barcha ishtirokchilardan ertalabki birinchi porsiya o'rtacha oqim siydigi standart idishga yig'ildi. Umumiy siydik tahlili laboratoriyada avtomatik analizator va mikroskopiya yordamida bajarilib, miqdori, nisbiy

zichlik, pH, epiteliy, leykotsitlar, eritrotsitlar va oqsil darajasi baholandi. Ko'rsatkichlar guruhlar o'rtasida taqqoslanib, PG da yashirin siydik sindromining erta aniqlash imkoniyati statistik jihatdan baholandi. Istisno mezonlari: avvaldan ma'lum surunkali buyrak yetishmovchiligi, qandli diabet, simptomatik siydik yo'llari infeksiyalari va homiladorlik holatlari.

ASOSIY QISM

Rinosinusit bilan kechuvchi poliangiitli granulematozda bemor diqqatini asosan burun bitishi, bosh og'rig'i yoki yiringli ajralma kabi shikoyatlar tortadi, buyraklardagi erta zararlanish esa ko'pincha e`tibordan chetda qoladi. Oddiy umumiy siydik tahlilida aniqlanadigan yashirin siydik sindromi esa glomerulyar shikastlanishning dastlabki belgilarini aks ettirishi mumkin. Quyida ushbu bog'liqlik batafsil tahlil qilinadi. Shu yo'l bilan oddiy LOR shikoyatlari ortidagi xavf erta seziladi.

1 - jadvalda PG bemorlarining siydik analizi natijalari berilgan bo'lib, bunda nazorat (sog'lom) guruhi bilan solishtirganda muhim farqlar kuzatiladi. Granulematoz poliangiitning og'ir tizimli shakllarida buyraklar tez-tez shikastlanadi – manbalarga ko'ra bemorlarning ~80%ida buyrak (glomerulonefrit) jarayonga tortiladi [7]. Bizning kuzatuvimizda ham 2-guruh bemorlarida (sistemali PG) buyrak shikastlanishini ko'rsatuvchi laborator belgilar aniqlangan. Leukotsituriya va gematuriya – jadvalda aks etganidek – PGga xos bo'lgan glomerulonefritning dalilidir. Xususan, 2-guruh bemorlarida siydikda leykotsitlar soni o'rtacha 31,3±1,57 ni tashkil etib, nazoratdagidan (2,2±0,33) 14 baravar yuqori ($p<0,001$) [8]. 1-guruhda ham sezilarli leukotsituriya mavjud (21,0±1,2; $p<0,05$). Eritrotsituriya ham 1-2-guruhlarda aniqlanib, 2-guruhda ayniqsa yuqori – 2,4±0,13 tagacha (nazoratda 0,3±0,15; $p<0,001$)[9]. Bu ko'rsatkichlar glomerulonefrit natijasida siydikka qon hujayralari chiqayotganini bildiradi. Darhaqiqat, GPA uchun xos bo'lgan buyrak zararlanishi –glomerulonefrit – klaster hosil qilgan eritrosit silindrlar paydo bo'lishi va mikrogematuriya bilan namoyon bo'ladi[6]. Bizning jadvalda eritrosituriya miqdoriy jihatdan berilgan bo'lsa-da, adabiyotlarda PG faollashgan davrida siydikda eritrosit silindrlar mikroskop ostida ko'rilishi ushbu kasallikka xos belgi ekani ta'kidlanadi[10][1].

Siydikda oqsil paydo bo'lishi – proteinuriya – ham jadvalda kuzatiladi: 1-guruhda o'rtacha 0,1±0,01 g/L, 2-guruhda 0,3±0,0 g/L gacha oshgan (nazoratda 0 g; $p<0,05$)[11]. Bu ham glomerulonefritga xos bo'lib, buyrakning filtratsiya funksiyasi buzilganidan darak beradi. Ma'lumki, normada siydikda ahamiyatsiz miqdorda (<0,03 g/L) oqsil bo'ladi, glomerulyar filtrlama buzilganda esa proteinuriya yuzaga keladi[12]. PGda uchrovchi granulomatoz nefrit natijasida siydikda oqsil paydo bo'lishi odatiy hol va kasallikning tizimli tus olganini ko'rsatadi[13]. Bizning 2-guruh bemorlarida sezilarli proteinuriya aniqlanishi aynan og'ir buyrak tutilishining belgisi sifatida qayd etildi. Agar PG vaqtida agressiv davolanmasa, bunday glomerulonefrit tez orada buyrak yetishmovchiligiga olib kelishi mumkin[13]. Shu sababli, siydik tahlilidagi bunday og'ishlarni erta aniqlash muhim diagnostik ahamiyatga ega.

Bundan tashqari, jadvalda siydikning fizik-kimyoviy ko'rsatkichlarida ham o'zgarishlar mavjud. Masalan, 1-guruh bemorlarida siydikning nisbiy zichligi ortgan (1026±0,71; nazoratda 1018±1,5; $p<0,05$)[4], bu esa organizmda suvsizlanish yoki konsentratsiya funksiyasining o'zgarishidan dalolatdir. 2- va 3-guruhda zichlik biroz pasaygan (1022±0,28 va 1022±0,66; $p<0,05$), buyrak funksiyasi tiklana boshlagach normal holatga yaqinlashgan ko'rinadi. pH ko'rsatkichi esa 1-guruhda biroz ishqoriy tomonga siljigan (7,2±0,16; nazoratda 6,5±0,1; $p<0,05$)[5], 2-guruhda esa aksincha kislotali tomonga tushgan (6,4±0,1). Bu o'zgarishlar buyrak funksiyasidagi buzilishlar va metabolik o'zgarishlarni aks ettirishi mumkin. Siydikda epitelial hujayralar miqdori ham bemorlarda ortgan (1-guruhda 5,1±0,44, 2-guruhda 7,0±0,38 ta ko'rinishda; nazoratda ~0,9; $p<0,05$)[6], bu siydik yo'llari epiteliyasining yangilanishi kuchayganini yoki yallig'lanishli deskvamatsiyani ko'rsatadi.

Jadval ma'lumotlari PGning LOR-shaklida ham buyraklarni sinchiklab tekshirish zarurligini ko'rsatadi. Ko'pincha rinosinusitlar bilan boshlangan PGda dastlab buyrak shikastlanishi simptomsiz – faqat siydik tahlilidagi mikrogematuriya va proteinuriya bilan namoyon bo'lishi mumkin[2][5]. Bizning bemorlarda aynan shunday bo'lgan – 1-2-guruhlarda siydik o'zgarishlari mavjud. Davolash natijasida 3-guruhda bu ko'rsatkichlar deyarli normallashgan: leykotsit va eritrosit miqdori yana nazorat darajasiga qaytgan (mos ravishda 2,28±0,09 va 1,52±0,10)[3][9], oqsil yo'qolgan. Demak, o'z vaqtida qo'yilgan to'g'ri tashxis va agressiv immunosupressiv davolash

1 – jadval

Tekshiruv guruhlardagi bemorlarning siydik sindromining laborator ko'rsatkichlari.

	Nazorat guruhi	1 GURUH (n=26)	2 GURUH (n=60)	3 GURUH (n=60)
Miqdori	51.5±5.09	113.1±36.11	136.7±30.35*	100.41±5.29*
Nisibiy zichligi	1018.0±1.5	1026.0±0.71*	1022.1±0.28*,**	1022.06±0.66*,**
pH	6.5±0.1	7.2±0.16*	6.4±0.1**	6.69±0.05**,***
epiteliy	0.9±0.23	5.1±0.44*	7.0±0.38*,**	4.44±0.21*,***
leykosit	2.2±0.33	21.0±1.2*	31.3±1.57*,**	2.28±0.09**,***
eritrosit	0.3±0.15	1.4±0.3*	2.4±0.13*,**	1.52±0.10*,***
oqsil	0.0±0.0	0.1±0.01*	0.3±0.0*,**	0±0**,***

(Izoh: * - nazorat guruhiga nisbatan ishonchlilik darajasi P < 0.05, P < 0.01, P < 0.001, ** - 1 guruhga nisbatan ishonchlilik darajasi P < 0.05, P < 0.01, P < 0.001, , *** - 2 guruhga nisbatan ishonchlilik darajasi P < 0.05, P < 0.01, P < 0.001)

buyrak zararlanishini qaytargan.

XULOSA

siydik tahlili PGning rinosinusit bilan namoyon bo'luvchi shaklida ham buyrak ishtirokini erta aniqlashga yordam beradi – bu oddiy LOR patologiyalardan farqlashda muhim omil bo'lib, bemorni og'ir asoratlardan saqlash imkonini beradi[11][12].

MANFAATLAR TO'QNASHUVI

Mualliflar ushbu tadqiqot ishi, uning mavzusi, predmeti va mazmuni raqobatdosh manfaatlarga ta'sir qilmasligini ma'lum qiladilar.

MOLIYALASHTIRISH MANBALARI

Mualliflar tadqiqot olib borish davomida moliyalashtirish mavjud bo'lmaganligini ma'lum qiladilar.

MA'LUMOTLAR VA MATERIALLARNING OCHIQLIGI

YUshbu tadqiqot davomida olingan yoki tahlil qilingan barcha ma'lumotlar ushbu nashr etilgan maqolaga kiritilgan.

MUALLIFLARNING TADQIQOTDAGI HISSALARI

Barcha mualliflar tadqiqotni tayyorlash va uning natijalarini sharhlash, shuningdek, nashrga tayyorlashga hissa qo'shgan. Barcha mualliflar qo'lyozmaning yakuniy versiyasini o'qib chiqqan va tasdiqlagan.

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Qo'llanilmaydi.

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"Евразийский журнал оториноларингологии - хирургии головы и шеи" Jurnal chop etilgan xaritalar va institutsional mansublik ko'rsatkichlari bo'yicha yurisdiktsiya da'volariga nisbatan neytral bo'lib qoladi.

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AVAILABILITY OF DATA AND MATERIALS

All data generated or analysed during this study are included in this published article.

AUTHORS' CONTRIBUTIONS

All authors contributed to the design and interpretation of the study and to further drafts. All authors read and approved the final manuscript.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

All applicable international, national, and/or institutional guidelines for the care and use of animals were followed.

CONSENT FOR PUBLICATION

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ADABIYOTLAR / REFERENCES

1. Wang R, Wang J, Hu Y, et al. Clinicopathological characteristics and outcomes of anti-neutrophil cytoplasmic antibody-associated vasculitis with acute kidney involvement. Sci Rep. 2021;11.
2. Wang R, Liu Y, Li X, et al. Hyperuricemia has an important influence on the progression of ANCA-associated renal vasculitis. Sci Rep. 2021;11.
3. Haraziński P, Piskorz F, Krzanowska K, et al. Granulomatosis with polyangiitis presenting with kidney failure: a case report. Cureus. 2025;17(1).
4. Marvisi C, Arioli D, Gallelli L, et al. Biomarkers in ANCA-associated vasculitis: clinical utility, pitfalls and their role in the outcomes assessment. Front Immunol. 2025;16:1616837.
5. Horai Y, Fujimoto S, Amano K, et al. Current diagnosis and treatment of anti-neutrophil cytoplasmic antibody-associated vasculitis. J Clin Med. 2025;14(5):1724.
6. Geetha D, Dua A, Yue H, et al. Efficacy and safety of avacopan in patients with ANCA-associated vasculitis receiving rituximab in a randomized trial. Ann Rheum Dis. 2024;83(2):223–232.
7. Jayne DRW, Merkel PA, Schall TJ, Bekker P; ADVOCATE Study Group. Avacopan for the treatment of ANCA-associated vasculitis. N Engl J Med. 2021;384:599–609.
8. Stacey SD, Holle J, Little MA, et al. Practical management of ANCA-associated vasculitis. Clin Med (Lond). 2024;24(5).
9. Delvino P, La Rocca G, et al. Systemic vasculitis: one year in review 2025. Clin Exp Rheumatol. 2025;43(Suppl.).
10. Hunter RW, Welsh N, Farrah TE, Gallacher PJ. ANCA-associated vasculitis. BMJ. 2020;369:m1070.
11. Wang R, Liu Y, Li X, et al. Long-term outcomes and prognostic factors for survival of patients with ANCA-associated vasculitis. Nephrol Dial Transplant. 2022;37(10).
12. King C, Harper L. Small vessel vasculitides: an update. Autoimmun Rev. 2024;23(8):103429.
13. Morales E, Martínez-Morillo M, et al. Recommendations for the diagnosis and treatment of anti-neutrophil cytoplasmic antibody-associated vasculitis. Nefrologia. 2025;45(3).