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GRANULEMATOZ POLIANGIIT NEGIZIDA KECHUVCHI RINOSINUSITLI BEMORLARDA ANEMIYA VA YALLIG'LANISH MARKERLARINING DIFFERENSIAL TASHXISDAGI AHAMIYATI

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Annotatsiya. Maqsad – poliangiitli granulematoz (PG) fonida rinosinusit bilan og'riqan bemorlarda anemiya va yallig'lanish markerlarining (gemoglobin, gematokrit, ECHT, leykotsitlar, trombositlar) differensial diagnostik ahamiyatini baholash. Tadqiqotga PG tashxisi qo'yilgan 3 ta klinik guruh va surunkali rinosinusitli nazorat bemorlari kiritildi. Barcha bemorlarga standart LOR-ko'rik bilan bir qatorda umumiy qon tahlili bajarilib, ko'rsatkichlar kasallik bosqichi va tizimli shikastlanish darajasi bilan taqqoslandi. PG guruhlarida normotsitar anemiya, ECHT ning keskin oshishi, reaktiv leykotsitoz va trombositlar sonidagi o'zgarishlar oddiy surunkali rinosinusitga nisbatan ancha yaqqol kuzatildi. Qon ko'rsatkichlarining kombinatsiyalangan o'zgarishi ANCA ijobiyligi va buyrak ishtiroki bilan muvofiqlikda bo'lib, tizimli vaskulit ehtimolini erta taxmin qilish imkonini berdi. Xulosa qilib, anemiya va yallig'lanish markerlarini kompleks tahlili PG bilan bog'liq rinosinusitlarni odatiy LOR-patologiyalardan farqlashda oddiy, ammo ishonchli laborator mezon sifatida taklif etiladi.

Kalit so'zlari: poliangiitli granulematoz, rinosinusit, anemiya, yallig'lanish markerlari, umumiy qon tahlili, eritrositlar cho'kish tezligi, tizimli vaskulit, differensial diagnostika.

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DIFFERENTIAL DIAGNOSTIC ROLE OF ANEMIA AND INFLAMMATORY MARKERS IN PATIENTS WITH RHINOSINUSITIS AGAINST THE BACKGROUND OF GRANULOMATOSIS WITH POLYANGIITIS

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Abstract. Objective: To assess the differential-diagnostic value of anemia and inflammatory markers in patients with rhinosinusitis on the background of granulomatosis with polyangiitis (GPA). We examined three clinical groups of GPA patients and a control group with isolated chronic rhinosinusitis. All patients underwent standard ENT examination and complete blood count; parameters were compared according to disease stage and presence of systemic involvement. GPA-associated rhinosinusitis was characterized by normocytic anemia, markedly increased erythrocyte sedimentation rate, reactive leukocytosis and dynamic changes in platelet count, which were significantly more pronounced than in chronic rhinosinusitis without vasculitis. Combined alterations in hemoglobin level, ESR, leukocytes and platelets correlated with ANCA positivity and renal involvement and allowed early suspicion of systemic vasculitis. We conclude that integrated analysis of anemia and inflammatory markers represents a simple laboratory tool that helps to distinguish GPA-related rhinosinusitis from common ENT pathology and should be incorporated into routine diagnostic algorithms.

Key words: granulomatosis with polyangiitis, rhinosinusitis, anemia, inflammatory markers, complete blood count, erythrocyte sedimentation rate, systemic vasculitis, differential diagnosis.

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USUL VA MATERIALLAR

Tadqiqotga TDTU ko'p tarmoqli klinikasiga rinosinusit shikoyati bilan murojaat qilgan va poliangiitli granulematoz (PG) tashxisi tasdiqlangan bemorlar kiritildi. Kiritish mezonlari: ANCA musbatligi,

klinik va radiologik mezonlar bo'yicha GPA ga mos kelishi, bemorning roziligi. Istisno mezonlari: boshqa tizimli vaskulitlar, onkologik kasalliklar, surunkali infeksiyalar, og'ir yurak-jigar yetishmovchiligi. Bemorlar 4 guruhga bo'lindi:

1-guruh – rinosinusitli, ANCA musbat PG (26 bemor);

2-guruh – rinosinusit + ANCA musbat va siydik sindromli PG (60);

3-guruh – ANCA manfiy surunkali rinosinusit (60);
nazorat – sog'lom ko'ngillilar (20). Barcha ishtirokchilarda ertalab och qoringa venoz qon olinib, avtomatik gematologik analizator yordamida qon ko'rsatkichlari baholandi, statistik tahlil Student t-testi bilan bajarildi.

ASOSIY QISM

Poliangiitli granulematoz fonida rivojlanadigan rinosinusit ko'plab bemorlarda dastlab oddiy surunkali rinit yoki sinusit sifatida talqin qilinadi, bu esa tizimli vaskulitni kech aniqlashga olib keladi. Bunday vaziyatda umumiy qon tahlilidagi anemiya va yallig'lanish markerlari o'zgarishi shifokorga muhim signal beradi. Quyida ushbu ko'rsatkichlarning differensial diagnostik ahamiyati yoritiladi. Olingan natijalar klinik qaror qabul qilishni yanada aniqroq qiladi.

1 - jadvalda poliangiitli granulematoz (PG) bilan rinosinusitlar rivojlangan bemorlarda umumiy qon tahlili natijalarini guruhlar kesimida aks ettiradi. PG asosan yuqori nafas yo'llari (LOR a'zolar) va o'pka hamda buyraklarni shikastlovchi, mayda tomirlarning granulematoz vaskuliti bo'lib, odatda kasallikning dastlabki ko'rinishlari aynan LOR sohasida – surunkali rinit, sinusit tarzida kuzatiladi [1][2]. Shu bois boshida oddiy rinosinusit sifatida noto'g'ri talqin etilib, tashxis kechikishi mumkin [3]. Jadval 1 ma'lumotlariga ko'ra, PG bilan kasallangan bemorlarning qonida yallig'lanish belgilari aniq namoyon bo'lgan: 1-guruh (cheklangan faollikdagi, asosan LOR zararlanishi bilan) va ayniqsa 2-guruh (tizimli, buyraklar jalb etilgan) bemorlarida leykotsitlar soni nazorat guruhiga nisbatan sezilarli oshgan (mos ravishda $6,2 \pm 0,16$ va $9,0 \pm 0,58$ ming/ μL , nazoratda $3,8 \pm 0,15$; $p < 0,05$) [4]. Bu PGdagi yallig'lanish jarayonining faol ekanini va leykositoz rivojlanishini ko'rsatadi. Ilmiy manbalarda qayd etilishicha, GPA bilan og'rikan bemorlarning 75% gacha qismida kasallik boshlanishida leykositoz kuzatiladi [5], bunda asosan neytrofillar segmenti ko'payishi va biroz limfopeniya kuzatilishi mumkin [6]. 1 - jadvalda esa "Limfotsit %" ko'rsatkichi 1- va 2-guruhda ortgandi, bu ehtimol patologik immun javob va hujayraviy immunitetdagi o'zgarishlarni

ifodalaydi (nazorat: $2,2 \pm 0,17\%$, 2-guruh: $23,3 \pm 0,55\%$; $p < 0,01$) [7].

1 - rasmda qonning qizil elementlari bo'yicha, bemorlarda anemiya belgilari aniq: 1- va 2-guruh gemoglobin darajasi mos ravishda $99,3 \pm 3,94$ g/L va $98,1 \pm 2,44$ g/L bo'lib, sog'lomlarga ($137,8 \pm 3,41$) nisbatan sezilarli past ($p < 0,05$) [8]. Bu PGdagi surunkali yallig'lanish natijasida rivojlanadigan anemiyani tasdiqlaydi. Ma'lumki, GPA bemorlarida ko'pincha normoxrom normotsitar anemiya kuzatilib, u kasallik faolligining noxos maxalliy belgisi hisoblanadi [6][9]. Nazorat guruhiga nisbatan 1-2-guruhlarda eritrositlar soni ham pasaygan ($4,7 \pm 0,11$ dan $3,5 \pm 0,14$ million/ μL gacha; $p < 0,05$) [10]. Shuningdek, gematokrit ko'rsatkichi pastlab, 2-guruhda minimal $36,4 \pm 0,66\%$ ni tashkil etdi (nazoratda $42,6 \pm 1,46\%$; $p < 0,01$) [11], bu esa qonda suyulish va anemiya darajasini ko'rsatadi.

Yallig'lanish faolligining muhim ko'rsatkichi – eritrositlar cho'kish tezligi (EChT) – bemorlarda keskin oshganligi jadvaldan ayon: nazoratda EChT atigi $3,8 \pm 0,35$ mm/soat bo'lsa, 1-guruhda $15,2 \pm 0,9$, 2-guruhda esa $23,4 \pm 1,92$ mm/soatga yetgan ($p < 0,001$) [12]. Bu juda yuqori ko'rsatkich bo'lib, PG'da aktiv yallig'lanish jarayoni borligini bildiradi. Adabiyotlarda ta'kidlanishicha, GPAning faol bosqichida bemorlarning 90% atrofida EChT va C-reaktiv oqsil darajasi oshadi [13][6], va EChT ko'pincha kasallik og'irligini aks ettiradi. Shunday qilib, bizning bemorlar guruhlarida ham EChTning sezilarli oshishi PGning aktiv fazada ekanini ko'rsatmoqda.

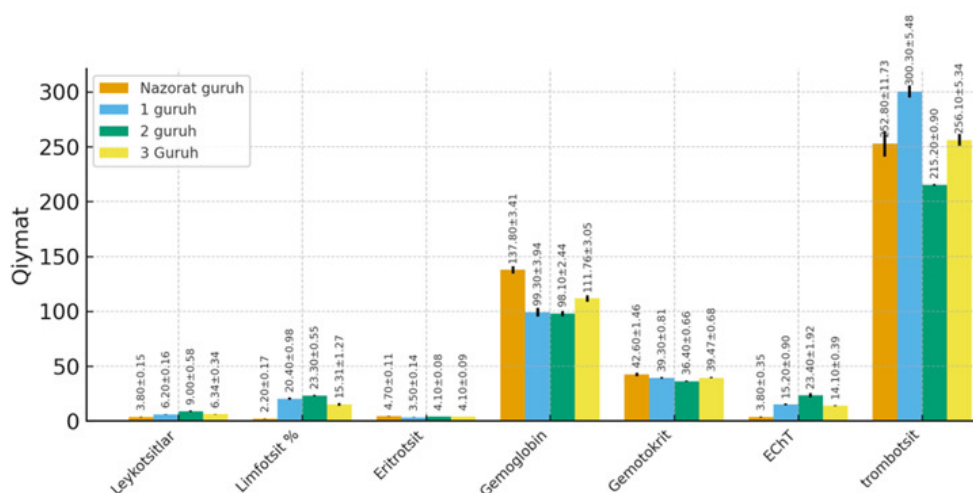
Trombotsitlar soni jadvalda qiziqarli o'zgarishlarni ko'rsatadi: 1-guruhda nazoratga nisbatan biroz trombositoz kuzatilgan ($300,3 \pm 5,48 \times 10^9/l$, nazoratda $252,8 \pm 11,73$; $p < 0,05$), 2-guruhda esa aksincha pasayish ($215,2 \pm 0,9$; $p < 0,01$) va 3-guruhda yana me'yoriy holatga qaytish ($256,1 \pm 5,34$) kuzatilgan [14]. Yallig'lanish jarayonlarida odatda reaktiv trombositoz paydo bo'lishi ma'lum [15], ammo 2-guruh bemorlarida trombositlarning kamayishi immun komplekslar ta'siri yoki sitostatik davolash oqibati bo'lishi mumkin. Ma'lumki, siklofosfamid kabi agressiv immunosupressorlar suyak iligi funksiyasini bosib, vaqtinchalik sitopeniyalarga olib kelishi mumkin [16]. 2-guruh bemorlari (kasallik og'ir formasi) ehtimolan shunday agressiv davolash olgan bo'lishi mumkin, natijada trombositopeniya kuzatilgan.

Tekshiruv guruhlardagi bemorlarning umumiy qon analizidagi ko'rsatkichlari.

	Nazorat guruhi	1 GURUH (n=26)	2 GURUH (n=60)	3 GURUH (n=60)
Leykotsitlar $\times 10^9/l$	3.8 \pm 0.15	6.2 \pm 0.16*	9.0 \pm 0.58*, **	6.34 \pm 0.34*, ***
Limfotsit %	2.2 \pm 0.17	20.4 \pm 0.98*	23.3 \pm 0.55*, **	15.31 \pm 1.27*, **, ***
Eritrotsit $\times 10^{12}/l$	4.7 \pm 0.11	3.5 \pm 0.14*	4.1 \pm 0.08*, **	4.10 \pm 0.09*, **
Gemoglobin, g/l	137.8 \pm 3.41	99.3 \pm 3.94*	98.1 \pm 2.44*	111.76 \pm 3.05*, **, ***
Gemotokrit	42.6 \pm 1.46	39.3 \pm 0.81*	36.4 \pm 0.66*, **	39.47 \pm 0.68*, ***
EChT mm/soat	3.8 \pm 0.35	15.2 \pm 0.9*	23.4 \pm 1.92*, **	14.10 \pm 0.39*, ***
Trombotsit $\times 10^9/l$	252.8 \pm 11.73	300.3 \pm 5.48*	215.2 \pm 0.9*, **	256.10 \pm 5.34**, ***

(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 $P < 0.05$, $P < 0.01$, $P < 0.001$)

Poliangiitli granulematoz fonida bemorlarning umumiy qon tahlilidagi ko'rsatkichlari



(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 $P < 0.05$, $P < 0.01$, $P < 0.001$)

XULOSA

jadval ma'lumotlari PG bilan rinosinusitli bemorlarda tizimli yallig'lanish va immun javob natijasida qonda jiddiy o'zgarishlar borligini ko'rsatadi: leykotsitoz, yuqori EChT, anemiya va trombotsitlar dinamikasidagi o'zgarishlar. Bu ko'rsatkichlar oddiy surunkali rinosinusitlarda kam uchraydi va PGni boshqa LOR kasalliklaridan farqlashga yordam beradi [17][18]. Xususan, yuqori EChT va og'ir anemiya bilan birga ANCA tahlilining ijobiy chiqishi PGni erta aniqlashda muhim diagnostik mezon bo'lib xizmat qiladi.

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

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CONFLICT OF INTERESTS

The authors declare the absence of obvious and potential conflicts of interest related to the

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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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