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ASSESSMENT OF THE COMBINATION OF QUANTITATIVE AND QUALITATIVE SIGNS IN NEPHROTIC SYNDROME IN CHILDREN WITH ATOPIC DERMATITIS

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Abstract.

Relevance. Today, the comorbid course of nephrotic syndrome (NS) and atopic dermatitis (AD) is often the cause of early disability development and death due to the year-by-year increase of chronic kidney failure among children and the impact of the disease on the normal growth and development of the body. **The purpose** of the study was to evaluate a combination of quantitative and qualitative symptoms in NS in children with AD. **Research material and methods.** 120 children aged 7-11 years underwent clinical and immunological examination. Among them: 1st group - NS - 40 patient: 2nd group - NS+AD - 40 patient:; Group 3 - AD-40 patient. Clinical diagnosis of patients was made based on XKT-10 and ISKDC, APN [(1974-2002)]. **Research results.** The mathematical method of neural network modeling made it possible to evaluate combinations of qualitative and quantitative signs of NS (chronic glomerulonephritis) on the background of atopy. High information of qualitative and quantitative signs: oliguria, proteinuria, reduction of SD3 in NS; In NS+AD, swelling, total protein depletion; According to AD markers, itchy skin, high IgE. **Conclusion.** The mathematical method of neural network modeling allows to evaluate combinations of qualitative and quantitative signs of nephrotic syndrome on the background of atopy. The following immunopathological indicators are considered diagnostic criteria of nephrotic syndrome in children with AD: increased ABL in relation to kidney tissues, CIC, IgE, overproduction of IL2, IL4.

Key words: children, nephrotic syndrome, atopic dermatitis, neural network.

So‘nggi o‘n yillar davomida bolalar orasida surunkali buyrak kasalliklari va nefrotik sindrom (NS) ko‘rsatkichining keskin o‘sishi kuzatilmoqda. AQSh, Yevropa, Avstraliya, Osiyo mamlakatlarida qayd qilinishicha, dunyo aholisining xar o‘ntadan biri buyrak faoliyati buzilishidan aziyat chekmoqda [3,4,8,10]. Surunkali buyrak kasalligiga chalingan bemorlarning 50%da kasallik surunkali buyrak yetishmovchiligining (SBE) 3-5 bosqichida, 10% bemorlarda esa terminal bosqichida aniqlanmoqda [4,8,9,10]. Ko‘pchilik bolalarda NS idiopatikdir. Yillik nefrotik sindrom bilan kasallanish 100 000 bolaga 2-7 asosiy holatni, bolalarda tarqalishi 100 000 bolaga 12-16 tani tashkil qiladi [8,10]. Jahon sog‘liqni saqlash tashkilotining (JSST) ma’lumotiga ko‘ra, 2011 yildan surunkali buyrak kasalliklari ijtimoiy jihatdan ahamiyatga molik bo‘lgan kasalliklar, shu jumladan, yurak qon-tomir, o‘pka, o‘sma va qandli diabet kasalliklari bilan bir qatorda tan olindi, “... surunkali glomerulonefrit tashxisli bolalarda 20 yoshga borib terminal surunkali buyrak yetishmovchiligi rivojlanish xavfi 68,0%ni tashkil qiladi” [3,4,8].

Butun dunyoda bugungi kundagi bolalarda NSni boshqa patologiyalar bilan komorbid kechishi olimlar etiborni tortmoqda. Shu jumladan, atopik dermatit (AD) bolalar orasida keng tarqalgan allergik patologiya bo‘lib, klinikasi surunkali autoimmun xarakterga ega va SBE rivojlanishida muxim o‘rin tutadi [1,4,5,8,11].

NS va ADning komorbid kechishi ko‘pincha bolalar o‘rtasida SBEning yildan-yilga ortib borishi va kasallikni organizm me’yoriy o‘sishi va rivojlanishiga aks ta’siri oqibatida erta nogironlik rivojlanishi va o‘lim xolatlari kelib chiqishiga sabab bo‘lmoqda.

Tadqiqot maqsadi atopik dermatitli bolalardagi nefrotik sindromda miqdoriy va sifatiy belgilar kombinatsiyasini baholash.

Tadqiqot materiali va usullari. 7 yoshdan 11 yoshgacha bo‘lgan 120 nafar bolalarda klinik-

immunologik tadqiqotlar olib borildi. Ulardan: 1-guruh-nefrotik sindrom (NS)- 40 nafar: 2-guruh-NS atopik dermatit bilan (NS+AD)- 40 nafar; 3-guruh- AD-40 nafar bolalar tashkil etdi. AD klinik tashxisi XKT-10 asosida, klinik-anamnestik ma'lumotlar, laborator, immunologik va funksional tekshirish uslublari, SCORAD indeksi va AD tashxis mezonlari yordamida qayd qilindi [1,6,7].

Nefrotik sindrom tashxisi jaxon standartlari bo'yicha (proteinuriya 1g/m2/sut, gipoalbunemiya 25 g/ldan kam, disproteinemiya, giperxolesterinemiya, periferik shishdan anasarkagacha bo'lgan shishlar) ISKDC, APN [(1974-2002)] ga asoslandi. APN (Arbeitsgemeinchaft fur Paediatrisce Nephrology), ISKDC (International study of Kidney Disease In Children) (1974-2009) ko'rsatmasiga binoan 1-14 yoshgacha bo'lgan bolalarda nefrotik sindrom asosida va buyrak faoliyati saklangan holda biopsiya o'tkazilmasdan qo'yiladi. Biz ham kuzatuvimizdagi bemorlarga yuqoridagilarga asoslanib klinik tashxisni shakllantirdik [4,9,10].

Ma'lumotlilik salmog'i hisoblab tahlil qilinganda har bir belgining uchrash tezligi va ifodalanganlik darajasi hisobga olindi.

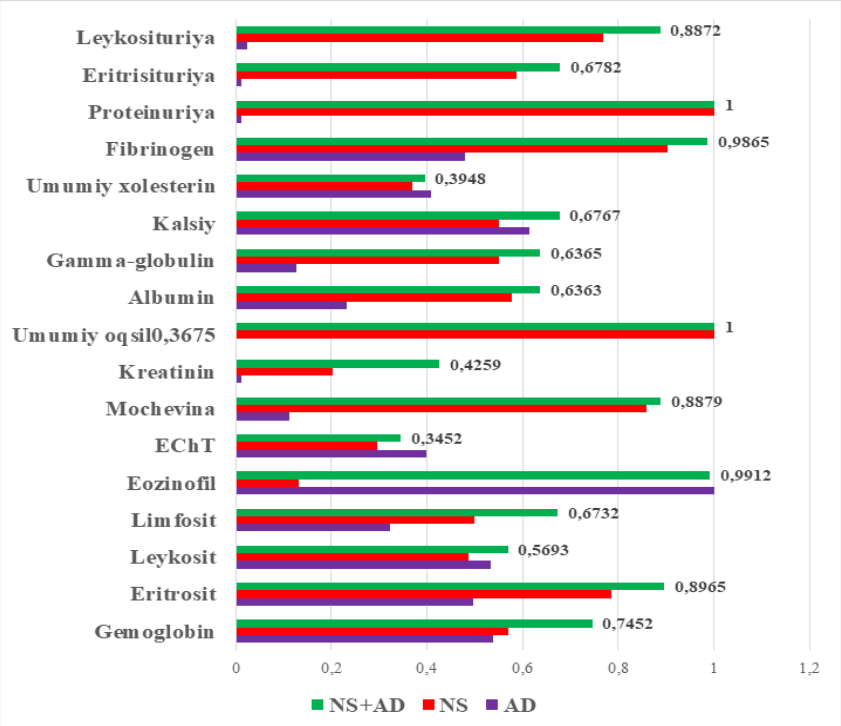
NS va NS +ADda kuzatilgan NS ning 12 ta klinik simptomlarini va AD ning 6 ta markerlarini tahlil qilish ular orasidagi eng ma'lumotlilarini ajratish imkonini berdi. NS va NS+AD uchun xos ahamiyatlilikning ifodalangan darajasiga, ya'ni yuqori ma'lumotlilikka quyidagi belgilar ega bo'ldi: AD da – ishtaha pasayishi (0,3476), bosh og'rig'i (0,5643); NS da – AB ortishi (0,5917), ishtaha pasayishi (0,5917), taxikardiya (0,6913), "bo'rsimon" rangparlik (0,7542), bosh og'irig'i (0,7752), shishlar (0,8933), oliguriya (1,000); NS+ADda – ishtaha pasayishi (0,6789), bo'shashganlik (0,7642), AB ortishi (0,7670), gepatomegaliya (0,7871), bosh og'rig'i (0,9657), shishlar (1,000), oliguriya (1,000).

AD markerlarini tahlil qilish quyidagi belgilarning ma'lumot-liligini ko'rsatdi: ADda – erta yoshda boshlanishi (0,7200), teri giperemiyasi (0,6869), surunkali qaytalanuvchi kechishi (0,7894), teri quruqligi (0,9769), qichishish mavjudligi (1,000), yuqori IgE (1,000); NS da – surunkali qaytalanuvchi kechish (0,8862); NS+AD da – kasallikning erta yoshda boshlanishi (0,7200); teri giperemiyasi (0,7924), surunkali kechish (0,9764), terining quruqlashishi (1,000), qichishish borligi (0,8967), yuqori IgE (1,000). Bizning fikrimizcha oliguriya, shishlar, bosh og'riqlari, teri quruqlashishi, qichishish borligi, yuqori IgE kabi belgilar tashxis qo'yishda diagnostik mezonlar bo'lishi mumkin.

NS va AD uchun xarakterli bo'lgan va yuqori ma'lumotli salmoqqa ega laborator ko'rsatkichlarni matematik tahlil qilish natijasida quyidagilarni ajratish mumkin (1-rasm).

1-rasm

AD, NS, NS+AD da qiyosiy miqdoriy ko'rsatkichlar



Izoh: olingan raqamlar davolashgacha ko'rsatkichlar orasidagi farqlar darajalari belgilari.

AD da – eritrotsitlar (0,4962), gemoglobin (0,5385), qondagi kalsiy (0,6142), leykotsituriya (0,4564), fibrinogen (0,3215), mochevina (0,2194), eozinofiliya (1,000); SGN da – leykotsitlar (0,5329), gemoglobin (0,5689), albumin (0,5767), leykotsituriya (0,7691), eritrotsitlar (0,7845), mochevina (0,8591), fibrinogen (0,9037), proteinuriya (1,000), umumiy oqsil (1,000); NS +AD da – leykotsitlar (0,5693), albumin (0,6363), limfotsitlar (0,6732), eritrotsituriya (0,6782), gemoglobin (0,7452), leykotsituriya (0,8872), mochevina (0,8879), eritrotsitlar (0,8965), fibrino-gen (0,9865), proteinuriya (1,000), umumiy oqsil (1,000).

Xulosalar

1. Neyronlar tarmog‘ini modellashtirishning matematik usuli atopiya fonida kechuvchi nefrotik sindrom sifat va miqdor belgilari kombinatsiyalarini baholash imkonini beradi.

2. Sifat va miqdor belgilarining yuqori axboroti: nefrotik sindromda oliguriya, proteinuriya, CD3 kamayishi; nefrotik sindrom atopic dermatit bilan komorbid kechganda: shishlar, umumiy oqsil; atopik dermatit markerlari bo‘yicha – teridagi qichish, IgE yuqori ko‘rsatkichida tasdiqlandi.

3. Atopik dermatitli bolalarda nefrotik sindromning tashxisot mezoni bo‘lib quyidagi immunpatologik ko‘rsatkichlar xisoblanadi: buyrak to‘qimalariga nisbatan ABLning ortishi, AIK, IgE miqdorining ko‘payishi, IL2, IL4ning ortiqcha ishlab chiqarilishi.

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