

# RISK FACTORS AND CLINICAL FEATURES OF COMORBID ATOPIC DERMATITIS IN CHILDREN

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## Abstract.

Atopic dermatitis is a multifactorial disease caused by the combined effects of genetic changes and trigger mechanisms in the body. It is known that the etiopathogenetic «basis» of multifactorial diseases is the creation of a certain polymorphic form of functionally defective genes (genetic «predispositions», candidate genes, mediator genes) that have a detrimental effect on the environment. Based on historical sources, atopic dermatitis is an «abnormal» genetically determined reaction of the body to inhalation and food allergens, characterized by an increase in the amount of immunoglobulin E (IgE) and specific IgE antibodies in response. In our current work, we will consider the origin of atopic dermatitis and its relationship with other allergic diseases. Risk factors for comorbidity are identified. **Materials and methods of the study.** The study included 130 children aged 6 to 12 years with bronchial asthma and AtD, who underwent inpatient treatment at the multidisciplinary clinic of the Tashkent Medical Academy in 2019-2024. **Study results.** Medical, biological and social risk factors for the development of atopic dermatitis in comorbidity with bronchial asthma were identified; the significance of determining the amount of Cys-LT in urine for the early diagnosis of atopic dermatitis in comorbidity with bronchial asthma was established; a method for the early diagnosis of atopic dermatitis in comorbidity with bronchial asthma was developed, a treatment method was improved, the effectiveness of which is based on the determination of leukotrienes in urine and specific IgE in the blood. **Conclusion.** Based on the obtained scientific results on the identification of clinical manifestations of atopic dermatitis comorbid with bronchial asthma, improvement of diagnostic and treatment methods: optimization of treatment methods and their use at the primary stage in the comorbid course of atopic dermatitis with bronchial asthma in children.

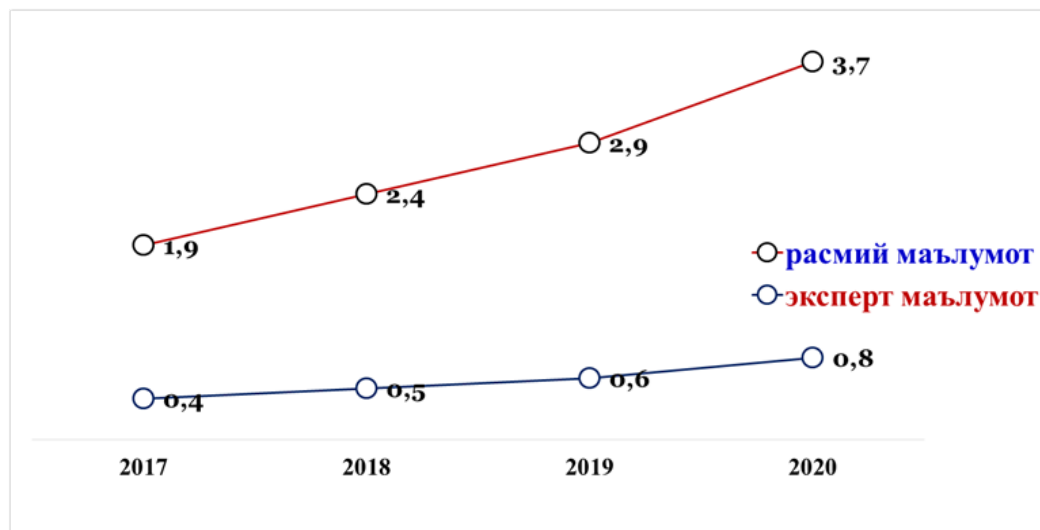
**Key words:** atopic dermatitis, allergic diseases, comorbidity, risk factors, children, treatment, prevention.

O'tkazilgan tadqiqotlar natijalariga retrospektiv taxilni o'rganilganda 6 yoshdan 12 yoshgacha bo'lgan bolalar orasida atopik dermatitni bronxial astma bilan komorbid kechishining yildan yilga ortib borishi va bu ko'rsatkich rasmiy statistikadan bir necha barobar yuqori ekanligini ko'rsatdi. Olingan ma'lumotga ko'ra bolalar orasida AtDni BA bilan komorbid uchrash darajasi 4,7% barobar rasmiy statistikadan yuqori ekanligi ma'lum bo'ldi (1-rasm). Atopik dermatitni bronxial astma bilan komorbid kechishining bir necha klinik variantlari mavjudligini aniqladik: BANing kuchayishi va atopik dermatitning remissiyasi – 34 nafar (25,1%); atopik dermatitning kuchayishi va bronxial astmaning remissiyasi- 45 ta (33,31%); bronxial astma va atopik dermatitning remissiya davrida- 25 ta (18,52%); Bronxial astma va atopik dermatitning bir vaqtning o'zida kuchayishi – 31 ta (22,91%) (bu boshqa variantlarga nisbatan og'ir kechishi ma'lum bo'ldi) (3.1jadval). Bolalarda AtDni og'ir kechish darajasini aniqlash uchun SCORAD (AtD ning og'irlik darajasini o'lchash) indeksidan foydalandik [1,4,6].

Retrospektiv tahlil qilingan bemorlarda atopik dermatitni bronxial astma bilan komorbid kechishining bir necha klinik variantlari mavjudligini aniqladik: bronxial astmaning kuchayishi va atopik dermatitning remissiyasi – 34 ta (25,1%); atopik dermatitning kuchayishi va astmaning remissiyasi- 45 ta (33,31%); bronxial astma va atopik dermatitning remissiyasi- 25 ta (18,52%); bronxial astma va atopik dermatitning bir vaqtning o'zida kuchayishi – 31 ta (22,91%) (bu boshqa variantlarga nisbatan og'ir kechishi ma'lum bo'ldi) (1-jadval).

1-rasm.

**Bolalarda AtDni BA bilan komorbid tarqalishi bo'yicha qiyosiy natijalar (%)**



135 nafar AtDli bemorlarda kasallikning og'irlik darajasi SCORAD [13,14,17] indeksi orqali baxolashda SCORAD ko'rsatkichi  $15,6 \pm 1,2$  baldan  $71,3 \pm 0,4$  balgacha bo'lgan oraliqda o'zgardi.

AtD kasallik o'tish davrining og'irligining klinik darajasi bo'yicha SCORAD indeksi ko'rsatkichlari qo'yidagicha tasniflangan: kasallikning o'tish og'irligining engil darajasida SCORAD indeksi [11,13,16] ko'rsatkichi o'rtacha  $19,5 \pm 1,1$  va  $18,3 \pm 0,3$  ballni, o'rta darajada -  $30,9 \pm 0,5$  ballni va og'ir darajasida  $47,6 \pm 1,2$  ballni tashkil etdi.

1-jadval

**Tekshiruvdagi bemorlarda AtDni komorbid kechishini og'irlik darajasini aniqlash (ballarda)**

Tekshiruvdagi guruhlarda kasallikni og'irlik darajasi indeks bo'yicha	Bronxial astmaning kuchayishi va dermatitning remissiya davri n=34	Dermatitning kuchayishi va astmaning remissiya davri n=25	Astma va dermatitning remissiya davri n=45	Astma va dermatitning bir vaqtning o'zida kuchayish davri n=31
SCORAD indeksi (ballarda)	$19,5 \pm 1,1$	$30,9 \pm 0,5$	$18,3 \pm 0,3$	$47,6 \pm 1,2$
Kasallikning og'irlik darajasi	Engil daraja	O'rta og'ir daraja	Engil daraja	Og'ir daraja

Retrospektiv taxlil natijasiga ko'ra atopik dermatitni bronxial astma bilan birga kechishi kuzatilgan 135 nafar bolalarda quyidagilarni aniqladik: bolalarning ko'pchiligida 96 nafarida (71,1%) teridagi jarayonlarni diffuz, 39 nafarida esa 28,8 % esa mahalliy tarqalganligini qayd etdik.

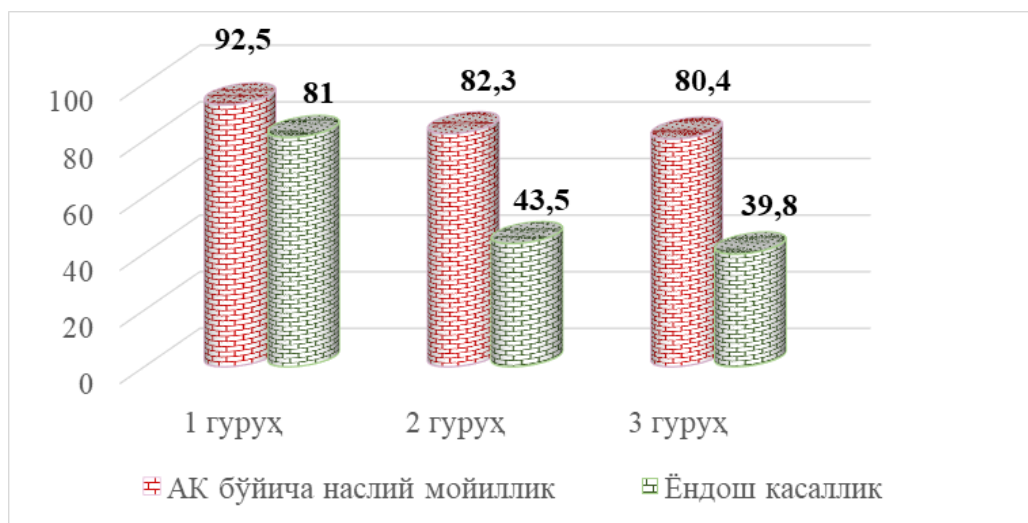
Shuni aytib o'tish joizki, 72,5 % tashkil etuvchi 98 nafar AtDli bemorlarda kasallikning faslga bog'liq ekanligi kuzatildi, 37 nafarida (27,4%) esa kasallikning fasliy o'zgarishlarga bog'liq emasligi, ya'ni AtDni BA bilan tez-tez qaytalanish bilan kuzatildi va kasallik belgilari yil davomida kuzatildi.

Kuzatilayotgan bemorlarda atopik dermatitning avj olish sabablari, asosan, oziq-ovqat mahsulotlari (82,2%), kana bilan kontakt (37,9%), epidermal (29,9%), chang (38,1%) allergenlar va sintetik yuvish vositalari bilan kontakt tufayli kuzatilgan. BA xurujlariga ko'proq chang (67,3%), epidermal (77,1%) va oziq-ovqat allergenlari (39,4%) sababli bo'lgan. 21,5% bolalarda teri jarayonining kuchayishi va nafas qisishi xurujlari zamburug allergenlari tomonidan qo'zg'atiladi.

Tadqiqotning 2 bosqichida kasallikni komorbid kechish xususiyatlarini o'rganish maqsadida keyingi kuzatuvga tanlab olingan bemorlarni 3 guruhga ajratdik. 1 guruhga atopik dermatitning bronxial astma bilan birga kechishi kuzatilgan 60 nafar bemor bolalar, 2 guruh atopik dermatit tashxisli (bronxial astmasiz) 35 nafar bemorlar, 3 guruhni esa bronxial astma tashxisi qo'yilgan 35 nafar bolalar tashkil qildi. Atopik dermatit, bronxial astma rivojlanishiga olib keluvchi omillardan biri bo'lgan allergik kasalliklar bo'yicha nasliy moyillikka va onalarning yondosh kasalliklariga e'tibor berdik (2-rasm).

2-rasm.

**Tekshiruvdagi bolalarda allergik kasalliklar bo'yicha nasliy moyillik va onalarning yondosh kasalliklari chastotasi %**



Allergik kasalliklar bo'yicha nasliy moyillik barcha guruhlarda ham yuqori ekanligi qayd qilindi (92,5%, 82,3% va 80,4%), 2 va 3 guruh ko'rsatkichlariga nisbatan kasallikni komorbid kechishida (1 guruh) allergik kasalliklar bo'yicha nasliy moyillik 1,1 baravar yuqori ekanligi aniqlandi.

AtDni bronxial astma bilan komorbid kechishi kuzatilgan 1 guruhdagi bemorlarning ko'pchiligida, perinatal anamnezda asfiksiya (28,5%), muddatdan oldin tug'ilish (19,7%), homila rivojlanishining orqada qolishi (31,6%) xolatlari kuzatildi va bu bemorlarning hayotining birinchi yilida zotiljam (31,2%), bronxitlar (34,6%) va konstitutsiya anomaliyalari (46,9%) kuzatilgani aniqlandi. Bu guruhdagi bolalarda keyinchalik BA ning yuzaga kelishiga sabab, o'pka to'qimalarining to'liq etilmaganligi, bronxlar kalibrining qisqarganligi, virusli va bakterial infeksiyaga nisbatan sezuvchanlikning yuqori bo'lishi va mahalliy immunitetning past ko'rsatkichlari bilan bog'liq bo'lishi mumkin.

Onalar xavf omilini o'rganish, 1-guruhdagi 23 nafar bolalarning onalarida xomiladorlik davrida (38,3%) homila gipoksiyasi havfini keltirib chiqaruvchi somatik kasalliklari bo'lganligini ko'rsatdi. 2-guruh onalaridagi ushbu ko'rsatkich 11,4%ni, 3 guruhda esa 20,0% tashkil qildi.

Tibbiy-biologik omillar (yoshi, jinsi, onaning xomiladorlik davrining kechishi, bolaning jismoniy rivojlanishi, o'tkazgan kasalliklari) taxlil qilinganda, kasallik jinsga bog'liqligi va bronxial astma o'g'il bolalarda, atopik dermatit qiz bolalarda ko'proq uchrashi aniqlandi. Bolalarning o'tkazilgan kasalliklar taxlil qilinganda, barcha guruh bolalarida quyidagi kasalliklarni (O'RVI, diatez, ovqat allergiyasi) o'tkazganligi aniqlandi va bu kasalliklar ham asosan 1 guruh bemorlarda yuqori foizda aniqlandi (85,7%).

Surunkali jarayonni mavjudligi bolalarning jismoniy rivojlanishiga sezilarli darajada ta'sir ko'rsatadi. Tekshiruvdagi bolalar yoshiga nisbatan tana uzunligi/bo'y ko'rsatkichlari 1-guruhdagi bolalarning 29,5% da standart og'ish chiziqlarni ko'rsatdi (interval (-3 SO) dan (-2 SO) gacha); taqqoslash guruhlari esa bu ko'rsatkich 16% va 13% tashkil qilib ( $r < 0,001$ ), yoshga nisbatan kam vaznlik (interval (-3 SO) dan (-2 SO) gacha) 1 guruh bolalarda ko'p aniqlandi ( $34,8 \pm 3,1\%$ , 2-guruhda -  $17,0 \pm 1,6\%$ , 3 -guruhda -  $15,3 \pm 1,2\%$ ,  $r < 0,001$ ).

Shunday qilib, bolalarda atopik dermatitni bronxial astma bilan komorbid kechishiga nasliy omillik (oilaviy allergik kasalliklarga moyillik) bilan bir qatorda tibbiy-biologik omillar (yoshi, jinsi, onaning xomiladorlik davrining kechishi, bolaning jismoniy rivojlanishi), bolalardagi yondosh kasalliklar katta ahamiyatga ega bo'lib, ular 1 guruh bemorlariga ko'proq xos bo'lgan.

1-jadval

**Tekshiruvdagi bemorlarda AtDni komorbid kechishini og'irlik darajasini aniqlash (ballarda)**

Ko'rsatkichlar	1 guruh n=60	2 guruh, n=35	3 guruh n=35	R
Daromadi kam bo'lgan oilalar	40,1±4,9	17,2±3,8	18,1±2,9	<0,001

Ko'p bolalik oilalar (ijtimoiy sharoiti og'ir bolalar)	26,4±3,0	7,0±4,2	29,1±1,0	<0,001
Ruxiy noqulay muhitli oilalar (oila a'zolarining bir-biriga bo'lgan munosabatlari).	26,9±5,2	15,5±2,6	12,5±3,2	<0,001

Izoh: R - guruxlarni o'zaro solishtirganda.

1-guruhdagi bemor bolalarda yondosh kasalliklarni o'rganish, quyidagi ma'lumotlarni ko'rsatdi: oshqozon ichak trakti kasalliklari (76,8%), surunkali tonzillit (76,4%), turli darajadagi anemiya (60,9%), LOR kasalliklari (27,5%), 2 va 3-guruh bolalarida bu ko'rsatkichlar esa mos ravishda - 51%, 48,9%, 32,98% va 20,2% ni tashkil qildi.

Tibbiy-biologik omillar taxlil qilinganda (yoshi, jinsi), kasallik jinsga bog'liqligi aniqlandi, 1-guruhda ushbu ko'rsatkich 35 nafar qizlarda (58,3%), 2 guruhda – 21 nafar qiz bolalarda (60,0%), 3 guruhda 57,2 % o'g'il bolalarda ustunlik bilan kuzatildi ( $r < 0,001$ ). Ona yoshi 30 dan yuqori bo'lishi deyarli barcha tekshiruv guruhlarda xam bir xil bo'ldi (1-guruhda 32,01 % va 2-guruhda 31,42 %, 3 guruhda-36,61%).

Ijtimoiy omillarni (daromadi kam bo'lgan oilalar, ijtimoiy sharoiti og'ir bo'lgan ko'p bolali oilalar, ruxiy noqulay muhitda yashaydiganlar) o'rganish shuni ko'rsatdiki, 1 guruh bolalarda daromadi kam bo'lgan oilalar (40,1%), ruxiy noqulay muhitda (oila a'zolarining bir-biriga bo'lgan munosabatlari) yashaydiganlar (26,4%) va ko'p bolali (3-nafardan ko'p) oilalarda (26,9%) yashaydiganlar 2 va 3 guruhlarga nisbatan ko'proq qayd qilinganligini ko'rsatdi (3.2-jadval).

Olingan ma'lumotlar shuni ko'rsatdiki, AtDning bronxial astma bilan komorbidligi allergik kasalliklar bo'yicha nasliy va ijtimoiy omillarni aniqlanishini yuqori chegarasi, atopik dermatit va BA bo'yicha nasliy moyillikning kombinatsiyasi bilan aniqlanadi.

Shunday qilib, olingan ma'lumotlarga ko'ra bolalarda atopik dermatitni bronxial astma bilan komorbid kechishining rivojlanishi, kechishi va prognoziga, allergik kasalliklar bo'yicha nasliy moyillik, o'tkazgan yondosh kasalliklar bilan bir qatorda tibbiy-biologik omillar (yoshi, jinsi, onaning xomiladorlik davrining kechishi, bolaning jismoniy rivojlanishi), oiladagi noxush muhit (oila a'zolarining bir-biriga bo'lgan munosabatlari), ko'p bolalilik, oila daromadining pastligini o'z ichiga olgan ijtimoiy omillar katta ahamiyatga ega bo'lib, bu omillar bu bemorlarda kasallikning komorbid kechishiga sabab bo'lganligi ma'lum bo'ldi.

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