

ALLERGIK RINIT: ETIOLOGIYA, PATOGENEZ, DIAGNOSTIKA VA ZAMONAVIY DAVOLASH YONDASHUHLARI

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Annotatsiya. Allergik rinit (AR) — tashqi allergenlar ta'sirida rivojlanadigan, burun shilliq qavatining IgE-vositali yallig'lanishi bilan kechadigan surunkali kasallik bo'lib, jahon miqyosida keng tarqalgan allergik kasalliklardan biri hisoblanadi. Ushbu maqolada allergik rinitning etiologik omillari, immunologik patogenezi, klinik tasniflash mezonlari, diagnostik yondashuvlar hamda zamonaviy davolash strategiyalari ilmiy adabiyotlar asosida keng tahlil qilingan. Kasallikning o'z vaqtida aniqlanishi va to'g'ri davolanishi bronxial astma va boshqa asoratlarning oldini olishda muhim ahamiyat kasb etishi ko'rsatilgan.

Kalit so'zlar: allergik rinit, IgE, allergen, antihistamin preparatlar, immunoterapiya, burun shilliq qavati, atopiya, sensibilizatsiya.

Abstract: Allergic rhinitis (AR) is a chronic IgE-mediated inflammatory disease of the nasal mucosa triggered by external allergens, representing one of the most prevalent allergic conditions worldwide. This article comprehensively reviews the etiological factors, immunological pathogenesis, clinical classification criteria, diagnostic approaches, and modern treatment strategies of AR based on scientific literature. Timely diagnosis and appropriate management are shown to play a critical role in preventing bronchial asthma and other complications.

Keywords: allergic rhinitis, IgE, allergen, antihistamines, immunotherapy, nasal mucosa, atopy, sensitization.

Kirish. Allergik rinit zamonaviy tibbiyotning eng dolzarb muammolaridan biri bo'lib, jahon aholisining 10–40% ini qamrab olgan.¹ So'nggi o'n yilliklarda sanoatlashgan mamlakatlarda kasallanish ko'rsatkichi barqaror ravishda o'sib bormoqda. Buning asosiy sabablari sifatida shaharlashuv, atrof-muhit ifloslanishi, "gigiena gipotezasi" va turmush tarzining o'zgarishi ko'rsatilmogda.² Allergik rinit ko'pincha mustaqil kasallik sifatida qabul qilinsa-da, u bronxial astma, allergik kon'yunktivit, surunkali rinosinusit va o'rta quloq yallig'lanishi kabi og'ir asoratlar uchun zamin yaratishi bilan xavflidir. JSST tomonidan qo'llab-quvvatlangan ARIA (Allergic Rhinitis and its Impact on Asthma) ko'rsatmalariga ko'ra, allergik rinitni boshqarish nafaqat burun simptomlarini, balki bemorning umumiy hayot sifatini yaxshilashga qaratilgan bo'lishi lozim.³

O'zbekistonda iqlim o'zgarishlari, chang bo'ronlari va gullash mavsumining uzayishi fonida AR tarqalishi tobora kuchayib bormoqda, bu esa mavzuning mintaqamiz uchun ham alohida dolzarbligini belgilaydi.

¹ Bousquet J. et al. Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines. *Allergy*, 2008; 63(Suppl 86):8–160.

² Pawankar R. et al. *World Allergy Organization White Book on Allergy*. Milwaukee: WAO, 2013.

³ Brozek J.L. et al. Allergic Rhinitis and its Impact on Asthma (ARIA) guidelines — 2016 revision. *Journal of Allergy and Clinical Immunology*, 2017; 140(4):950–958.

Etiologiya va Xavf Omillari. Allergik rinitning rivojlanishi ko'p omilli jarayon bo'lib, genetik moyillik va tashqi muhit omillarining o'zaro ta'siridan iborat. Ota-onasidan biri atopik kasallikka chalingan bolalarda AR rivojlanish xavfi 25–30%, ikkalasi ham kasallikka moyil bo'lsa, xavf 50–70% ga yetadi.⁴ Asosiy allergenlar ikki guruhga bo'linadi: mavsumiy va yil bo'yi ta'sir etuvchi allergenlar. Mavsumiy allergenlar qatoriga o'simlik changchalari (archa, qayin, bug'doy, shuvoq), mog'or sporali kiradi. O'zbekistonda aprel-may oylarida qayin va g'oz changchasi, iyul-avgust oylarida esa shuvoq o'simligining changchasi asosiy mavsumiy provokatorlar hisoblanadi.⁵ Yil bo'yi ta'sir etuvchi allergenlar ichida uy changining *D. pteronyssinus* va *D. farinae* turlari birinchi o'rinda turadi. Uy hayvonlari epiteli (mushuk, it, quyon), tarakan allergenlar va mog'or zamburug'lari (*Alternaria*, *Cladosporium*) ham keng tarqalgan sababchilar sifatida qayd etiladi.⁶ Kasallanish xavfini oshiruvchi omillarga chekish (passiv va aktiv), havo ifloslanishi (NO_2 , ozon, mayda zarralar), past tug'ilish vazni, sun'iy emizish va yoshligida antibiotiklar qabul qilish kiradi.

Patogenez. AR patogenezi ikki bosqichdan — dastlabki sensibilizatsiya va takroriy allergen ta'siri — dan iborat. Birinchi marta allergen bilan uchrashuv natijasida antigen prezentatsiya jarayoni boshlanib, Th2 limfotsitlari faollashadi. Th2 hujayralari IL-4, IL-5, IL-13 sitokinlarini ishlab chiqaradi, bu esa B-limfotsitlarni allergenra spetsifik IgE antitanalar sintez qilishga undaydi.⁷ Hosil bo'lgan IgE molekulalari burun shilliq qavatidagi mast-hujayralar va bazofil granulotsitlar yuzasidagi yuqori affin FcεRI retseptorlari bilan bog'lanadi. Allergen qayta kirganida ikkita qo'shni IgE molekulasini "ko'priq" orqali bog'laydi va bu mast-hujayralar degranulatsiyasini ishga tushiradi. Natijada histamin, triptaza, leykotrienlar (LTC4, LTD4) va prostaglandinlar (PGD2) ajralib chiqib, darhol allergik reaksiya — aksirish, burunning yopilishi, suvilishi va qichishishi — ga sabab bo'ladi.⁸ Bu darhol faza reaksiyadan 4–8 soat o'tgach kech faza reaksiyasi boshlanadi: eozinofillar, neytrofillar va T-limfotsitlar shilliq qavatga migratsiya qilib, surunkali yallig'lanishni qo'llab-quvvatlaydi. Ushbu ikki bosqichli mexanizm kasallikning ham o'tkir, ham surunkali klinik ko'rinishini tushuntiradi.⁹

Tasnif. Zamonaviy ARIA tasnifiga ko'ra, allergik rinit ikki mezon bo'yicha tavsiflanadi: davomiyligi va og'irlik darajasi. Davomiyligiga ko'ra: mavsumiy (yil ichida 4 haftadan kam) va yil bo'yi yoki qayta-qayta takrorlanuvchi (4 haftadan ortiq) shakllarga bo'linadi. Og'irlik darajasiga ko'ra: yengil shakl — uyqu buzilmaydi, kundalik faoliyat va ishlash qobiliyati saqlanadi; o'rtacha-og'ir shakl — uyqu buzilishi, kundalik faoliyat cheklanishi, maktab yoki ish

⁴ Muraro A. et al. EAACI Food Allergy and Anaphylaxis Guidelines: diagnosis and management of food allergy. *Allergy*, 2014; 69(8):1008–1025.

⁵ Sharipov Sh.I. O'zbekistonda pollinoz kasalligining tarqalishi va klinik xususiyatlari. *O'zbekiston tibbiyot jurnali*, 2020; 2:38–44.

⁶ Calderon M.A. et al. Respiratory allergy caused by house dust mites. *Journal of Allergy and Clinical Immunology*, 2015; 136(6):1421–1427.

⁷ Holgate S.T. Innate and adaptive immune responses in asthma. *Nature Medicine*, 2012; 18(5):673–683.

⁸ Jutel M. et al. Mechanisms of allergen immunotherapy — a critical review. *Clinical and Experimental Allergy*, 2015; 45(3):529–539.

⁹ KleinJan A., Vinke J.G. Local production and detection of specific IgE in nasal mucosa. *European Respiratory Journal*, 2000; 15(3):491–497.

qobiliyatining pasayishi kuzatiladi.¹⁰ Bu tasnif davolash taktikasini belgilashda amaliy jihatdan muhim ahamiyatga ega.

Klinik Ko‘rinish. AR ning to‘rtta asosiy simptomi mavjud: aksirish (ko‘pincha ketma-ket 5–10 marta), burun oqishi (shaffof, suvsimon), burun bitishi va burunning qichishishi. Ko‘z simptomlari — ko‘z yoshlanishi, qichishishi va qizarishi — bemorlarning 70% ida kuzatiladi va allergik kon’yunktivit bilan bir vaqtda kechishi xos.¹¹ Bundan tashqari postnasal oqish, hidni sezmaslik (gipoosmiya), bosh og‘rig‘i, eshitishning biroz pasayishi va umumiy charchoq ham kuzatilishi mumkin. Og‘ir holatlarda uyqu sifatining yomonlashuvi, kunduzi uyquchanlik va diqqat jamlash qobiliyatining pasayishi — ayniqsa bolalar va o‘quvchilarda — kasallikning akademik va ijtimoiy hayotga salbiy ta‘sirini ko‘rsatadi.¹²

Diagnostika. Anamnez yig‘ish diagnostikaning asosiy va birinchi bosqichi hisoblanadi.

Simptomlar paydo bo‘lishi bilan mavsumiy bog‘liqlik, allergen ta‘siri bilan aloqa, oilaviy atopiya tarixi va qo‘shimcha kasalliklar aniqlanadi. Asosiy diagnostik usullar: Teri-prik test — standart allergodiagnostika usuli bo‘lib, 15–20 daqiqada natija beradi; sezgirligi 85–90%.¹³

Spetsifik IgE aniqlash (ImmunoCAP) — qon zardobida allergenga spetsifik IgE darajasini o‘lchaydi; prik-test o‘tkazish imkoni bo‘lmagan holatlarda (kuchli ekzema, antihistamin to‘xtatib bo‘lmasa) qo‘llaniladi. Rinoskopiya va endoskopiya — shilliq qavatning ko‘kimsir-oq rangga kirishi, shishi va shaffof sekretiya allergik rinitga xos ko‘rinish.

Rinomanometriya — burun orqali havo o‘tishining kemiometrik baholashi. Sitologik tekshiruv — burun surtmasida eozinofillar ko‘pligi (>10%) allergik tabiatni tasdiqlaydi.¹⁴

Davolash: Allergendan Qochish. Davolashning birinchi va eng muhim bosqichi — provokatsion allergen bilan kontakti minimallashtirishdir. Uy changi kanallari uchun maxsus to‘siq to‘shak va yostiq qoplamalari, xona namligini 50% dan past saqlash, pishgan o‘t changchalari mavsumida tashqarida vaqtni cheklash va yurish keyin dush qabul qilish samarali choralar hisoblanadi.¹⁵

Farmakologik Davolash: Ikkinchi avlod antihistamin preparatlar — Setirizin, Loratadin, Feksofenadin — aksirish, qichishish va burun oqishini samarali bartaraf etadi. Birinchi avlod preparatlardan farqli ravishda uyquchanlik yon ta‘siri minimal.¹⁶ **Intranasal kortikosteroidlar (INCS)** — Mometazon, Flutikazon, Beklometazon — surunkali AR davolashda eng samarali monoterapiya vositasi hisoblanadi.

¹⁰ Bousquet J. et al. Allergic rhinitis and its impact on asthma: ARIA 2008 update. *Allergy*, 2008; 63(Suppl 86):8–160.

¹¹ Settipane R.A., Charnock D.R. Epidemiology of rhinitis: allergic and nonallergic. *Clinical Allergy and Immunology*, 2007; 19:23–34.

¹² Walker S. et al. Seasonal allergic rhinitis is associated with a detrimental effect on examination performance in UK teenagers. *Journal of Allergy and Clinical Immunology*, 2007; 120(2):381–387.

¹³ Heinzerling L. et al. The skin prick test — European standards. *Clinical and Translational Allergy*, 2013; 3(1):3.

¹⁴ Meltzer E.O. et al. Rhinitis diagnosis and management. *Otolaryngology — Head and Neck Surgery*, 2009; 141(Suppl 2):S1–S32.

¹⁵ Sheikh A. et al. House dust mite avoidance measures for perennial allergic rhinitis. *Cochrane Database of Systematic Reviews*, 2010; (7):CD001563.

¹⁶ Simons F.E.R. Advances in H1-antihistamines. *New England Journal of Medicine*, 2004; 351(21):2203–2217.

Burun shilliq qavatidagi yallig'lanishni bevosita bostiradi, tizimli yon ta'siri minimal.¹⁷

Antileykotrienlar — Montelukast — ayniqsa AR va bronxial astma bir vaqtda kechganda qo'llash afzalligi bor. **Intranasal antihistaminlar** — Azelastin — tez ta'sir boshlanishi bilan ajralib turadi, 15 daqiqada samara beradi. **Dekongestantlar** — Oksimetazolin, Ksilomentazolin — qisqa muddatga (5 kundan ortiq emas) burun bitishini bartaraf etish uchun qo'llaniladi; uzoq muddatli qo'llash rinitis medicamentosa rivojlantirishga olib keladi.¹⁸

Allergenra Spetsifik Immunoterapiya (ASIT): ASIT — allergik rinitning patogenetik davolash usuli bo'lib, kasallikning tabiiy kechishini o'zgartirishga qodir yagona terapevtik yondashuv hisoblanadi.¹⁹ Allergen ekstrakti uzoq muddat — odatda 3–5 yil — davomida asta-sekin ortib boruvchi dozalarda teri ostiga yuborilib yoki til ostiga tomizib beriladi. ASIT Th2 dan Th1 immunologik javobga o'tishni ta'minlaydi, regulyator T-limfotsitlarni (Treg) faollashtiradi va allergenga tolerantlik hosil qiladi. So'nggi yillarda sublingual immunoterapiya (SLIT) — allergen tabletkalari og'iz ostiga qo'yish usuli — keng tarqalmoqda, chunki u uyda mustaqil qabul qilinishi mumkin.²⁰

Asoratlar. Davolanmagan yoki yetarli darajada boshqarilmagan AR qator asoratlar berishi mumkin. Bronxial astma rivojlanish xavfi AR li bemorlarda 3 marta yuqori.²¹ "Allergik marsh" kontseptsiyasiga ko'ra, bolalikdagi atopik dermatit, so'ngra AR va nihoyat bronxial astma — kasallik progressiyasining ketma-ket bosqichlaridir. Bundan tashqari surunkali rinosinusit, burun poliplari, ekssudativ o'rta quloq yallig'lanishi, adenoidlar gipertrofiyasi va uyqu apneasi AR ning keng tarqalgan asoratlari qatoriga kiradi.²²

Xulosa. Allergik rinit — immunologik mexanizmlari yaxshi o'rganilgan, ammo hali ham ko'plab bemorlar uchun hayot sifatini keskin pasaytiruvchi surunkali kasallik bo'lib qolmoqda.

Kasallikning erta va to'g'ri tashxisi, allergendan qochish choralari, zamonaviy farmakologik davolash va allergenga spetsifik immunoterapiyaning kombinatsiyasi nafaqat simptomlarni boshqarish, balki kasallik tabiiy kechishini o'zgartirishga imkon beradi.

O'zbekiston sharoitida iqlim xususiyatlari va mahalliy allergen spektrini hisobga olgan holda mintaqaviy diagnostika va davolash protokollarini ishlab chiqish zarurati bugungi kunda muhim ilmiy va klinik vazifa bo'lib turibdi.

Foydalanilgan Adabiyotlar

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