

BIRLAMCHI GLAUKOMANING TARQALISHI VA MINTAQAVIY XUSUSIYATLARI: POPULYATSION TADQIQOTLAR TAHLILI

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Annotatsiya. Glaukoma tashxisi glaukomatoz optik neyropatiyaning strukturaviy va funksional belgilarining mavjudligiga asoslanadi. Kasallik ochiq burchakli va yopiq burchakli shakllarga bo'linadi, ularning har biri birlamchi va ikkilamchi turlarga ajratiladi. Eng ko'p uchraydigan shakllari — birlamchi ochiq burchakli glaukoma (BOBG) va birlamchi yopiq burchakli glaukoma (BYBG) hisoblanadi. Glaukomaning tarqalishi dunyoning turli hududlarida sezilarli darajada farq qiladi va u qaytmas ko'rlikning yetakchi sabablaridan biridir. To'liq ko'rish yo'qotilgan bemorlarda hayot sifatiga kuchli ta'sir ko'rsatish bilan birga, kasallikning yengilroq bosqichlarida ham, asosan periferik ko'rishning yo'qolishi tufayli kundalik hayotda sezilarli qiyinchiliklar yuzaga keladi.

Kalit so'zlar: birlamchi ochiq burchakli glaukoma, birlamchi yopiq burchakli glaukoma, gemodinamika, kompleks davoglu komatoz optik neyropatiya.

Iqtibos uchun:

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РАСПРОСТРАНЁННОСТЬ И РЕГИОНАЛЬНЫЕ ОСОБЕННОСТИ ПЕРВИЧНОЙ ГЛАУКОМЫ: АНАЛИЗ ПОПУЛЯЦИОННЫХ ИССЛЕДОВАНИЙ

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Аннотация. Диагноз глаукомы устанавливается при наличии структурных и функциональных признаков глаукоматозной оптической нейропатии. Заболевание классифицируется на открытоугольную и закрытоугольную формы, каждая из которых подразделяется на первичную и вторичную. Наиболее распространенными являются первичная открытоугольная глаукома (ПОУГ) и первичная закрытоугольная глаукома (ПЗУГ). Распространенность глаукомы значительно варьирует в различных регионах мира, и она является ведущей причиной необратимой слепоты. Помимо выраженного влияния на качество жизни у пациентов с полной потерей зрения, даже при менее тяжелых стадиях заболевания могут возникать значительные трудности в повседневной жизни, главным образом из-за утраты периферического зрения.

Ключевые слова: первичная открытоугольная глаукома, первичная закрытоугольная глаукома, глаукоматозная оптическая нейропатия

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PREVALENCE AND REGIONAL CHARACTERISTICS OF PRIMARY GLAUCOMA: AN ANALYSIS OF POPULATION STUDIES

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Annotation. Glaucoma is diagnosed based on the presence of structural and functional signs of glaucomatous optic neuropathy. The disease is classified into open-angle and angle-closure forms, each of which is subdivided into primary and secondary. The most common are primary open-angle glaucoma (POAG) and primary angle-closure glaucoma (PACG). The prevalence of glaucoma varies significantly across different regions of the world, and it is the leading cause of irreversible blindness. In addition to significantly impacting quality of life in patients with complete vision loss, even less severe cases of the disease can cause significant difficulties in daily life, primarily due to the loss of peripheral vision.

Key words: primary open-angle glaucoma, primary angle-closure glaucoma, glaucomatous optic neuropathy.

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Kirish. Glaukoma — bu geterogen optik neyropatiyalar guruhi bo'lib, to'r pardaning ganglioz hujayralari va ularning aksonlarining progressiv degeneratsiyasi bilan tavsiflanadi, bu esa ko'rish maydonining xos va qaytmas nuqsonlariga olib keladi. Kasallik rivojlanishida turli patofiziologik mexanizmlar ishtirok etishiga qaramay, ko'z ichki bosimining (KIB) oshishi asosiy xavf omili bo'lib qolmoqda. KIBni o'lchash bilan bir qatorda, so'nggi o'n yilliklarda glaukoman ko'rish nervining boshqa kasalliklaridan farqlashda uning bosh qismidagi o'ziga xos strukturaviy o'zgarishlar keng qo'llanilmoqda.

Glaukoma tashxisi glaukوماتоз optik neyropatiyaning strukturaviy va funksional belgilarining mavjudligiga asoslanadi. Kasallik ochiq burchakli va yopiq burchakli shakllarga bo'linadi, ularning har biri birlamchi va ikkilamchi turlarga ajratiladi. Eng ko'p uchraydigan shakllari — birlamchi ochiq burchakli glaukoma (BOBG) va birlamchi yopiq burchakli glaukoma (BYBG) hisoblanadi. Glaukomaning tarqalishi dunyoning turli hududlarida sezilarli darajada farq qiladi va u qaytmas ko'rlikning yetakchi sabablaridan biridir. To'liq ko'rish yo'qotilgan bemorlarda hayot sifatiga kuchli ta'sir ko'rsatish bilan birga, kasallikning yengilroq bosqichlarida ham, asosan periferik ko'rishning yo'qolishi tufayli kundalik hayotda sezilarli qiyinchiliklar yuzaga keladi. [3,5,7,26]

Ma'lumki, glaukoma uzoq vaqt davomida ko'rlik sababi bo'lib kelgan va miotik preparatlar XIX asrdan boshlab KIBni kamaytirish uchun qo'llanilgan. Biroq ko'rlikning oldini olish borasida sezilarli yutuqlarga faqat so'nggi 50 yil ichida erishildi, ayniqsa 1960-yillar oxirida trabekulektomiya operatsiyasining joriy etilishi, shuningdek 1980-yillarda beta-adrenoblokatorlar, 1990-yillarda alfa-agonistlar va 2000-yillarda prostaglandin analoglarining keng qo'llanilishi bilan bog'liq. [31,54]

Glaukoma erta bosqichlarda ko'pincha simptomsiz kechishi va zamonaviy davolash usullari yo'qotilgan ko'rish maydonini tiklay olmasligi sababli, erta tashxis qo'yish va o'z vaqtida davolash kasallikning individual va ijtimoiy yukini kamaytirishda hal qiluvchi ahamiyatga ega. Shunga qaramay, glaukoman erta aniqlash va samarali davolash butun dunyo bo'ylab, ayniqsa past va o'rta daromadli mamlakatlarda, sog'liqni saqlash tizimi uchun dolzarb muammo bo'lib qolmoqda. Ko'plab bemorlar aniqlanmay qolmoqda, mavjud davolash esa ko'pincha kasallikning rivojlanishini to'liq to'xtata olmaydi. [37,45,71,80]

Glaukomaning tarqalishi mamlakatlar orasida aholining xususiyatlari va kasallikning ustun turkumlariga qarab sezilarli darajada farq qilishi mumkin. Erkaklarda birlamchi ochiq burchakli glaukoma (BOBG) rivojlanish xavfi yuqori bo'lsa, xitoylik ayollarda birlamchi yopiq burchakli glaukoma (BYBG)ga moyillik yuqori ekanligi qayd etilgan.

2014 yilda glaukoma bo'yicha muhim meta-tahlil chop etilgan bo'lib, unda 40–80 yoshdagi aholida kasallikning tarqalishi baholangan. Tadqiqotga jami 53 populyatsion namuna kiritilgan: 24 tasi Osiyodan, 12 tasi Yevropadan, 7 tasi Shimoliy Amerikadan, 5 tasi Afrikadan, 3 tasi Okeaniyadan va 2 tasi Lotin Amerikasi hamda Karib havzasidan. Umumiy glaukoma tarqalishi (BOBG va BYBG birgalikda) eng yuqori Afrika qit'asida aniqlangan (4,8%; 95% ishonch oralig'i [IO] 2,6–8,0). BOBG ham ko'proq Afrikada kuzatilgan (4,2%; 95% IO 2,1–7,4), BYBG esa Osiyoda ko'proq tarqalgan (1,1%; 95% IO 0,4–2,3). [23,65,77]

Bu ma'lumotlar shuni tasdiqlaydiki, afroamerikaliklar orasida glaukoma tarqalishi eng yuqori bo'lgan (6,1%; 95% IO 3,8–9,1) va BOBG (5,4%; 95% IO 3,2–8,3), Osiyo populyatsiyalarida esa BYBG ko'proq kuzatilgan (1,2%; 95% IO 0,5–2,6). BOBG va

BYBG ko'rsatkichlarini birlashtirganda glaukomaning tarqalishi quyidagicha bo'lgan:

- Osiyo — 3,4% (95% IO 2,3–5,0)
- Yevropa — 2,9% (95% IO 1,9–4,4)
- Shimoliy Amerika — 3,6% (95% IO 2,0–5,8)
- Lotin Amerikasi va Karib mamlakatlari — 4,5% (95% IO 2,4–7,9)
- Okeaniya — 3,0% (95% IO 1,4–5,2)
- Butun dunyo bo'yicha — 3,5% (95% IO 2,1–5,8) [3,5,7,26]

O'zbekistonda "...2010 yildan 2019 yilgacha glaukoma bilan kasallanishning birlamchi darazhassi 100,000 katta yoshli aholida 31,5 dan 56,1 gacha bo'lgan odamlar bilan 2 martaga o'sdi..." Rizaev va Tuychibaevlarning so'zlariga ko'ra, O'zbekistonda birlamchi glaukoma bilan kasallanish darajasi 2010 yildan 2019 yilgacha 3,2 baravar, nogironlik esa 2,7 baravar oshdi. 2029 yilgacha glaukoma bilan kasallanish darajasi prognozlar shuni ko'rsatdiki, O'zbekistonda birlamchi glaukoma bilan kasallanish darajasi 3,7 baravar, nogironlik esa 2,5 baravar oshadi [1,2,27,28].

Kutilmoqdaki, 2025 va 2040 yillarga kelib Lotin Amerikasi, Osiyo va Afrikadagi glaukomali bemorlar soni Shimoliy Amerika, Okeaniya va Yevropaga nisbatan sezilarli darajada oshadi. Bu ko'pincha ushbu hududlarda qarigan aholining tez o'sishi bilan bog'liq. Ma'lumotlarga ko'ra, afroamerikaliklarda glaukoma ko'proq agressiv kechishi va erta yoshda boshlanishi mumkin. Shuningdek, Sahara janubidagi Afrika mamlakatlarida so'nggi o'n yillik tadqiqotlar glaukomaning yuqori tarqalishini tasdiqlaydi [21,33,35,47,56].

40 yoshdan oshganlar orasida Nigeriyada yoshga standartlashtirilgan glaukoma tarqalishi 5,0% ni tashkil qiladi (95% IO 4,6–5,5). Ushbu populyatsiyada gonioskopiya o'tkazilgan ishtirokchilarning 86% da ochiq burchakli glaukoma aniqlangan, 14% da esa yopiq burchakli shakl kuzatilgan. Nigeriyaning janubi-g'arbiy qismida o'tkazilgan boshqa tadqiqotda glaukoma tarqalishi yanada yuqori — 7,3% (95% IO 5,5–9,1) bo'lib, birlamchi ochiq burchakli glaukoma (BOBG) — 6,2% (95% IO 4,5–7,8), birlamchi yopiq burchakli glaukoma (BYBG) esa 0,2% (95% IO 0,0–0,6) tashkil etgan [8,15,17,46].

Shunga o'xshash natijalar Gananing Tema shahrida qayd etilgan: glaukoma tarqalishi 6,5% (95% IO 5,8–7,1), BOBG — 6,1% (isnohnch oralig'i ko'rsatilmagan), BYBG — 0,2% (isnohnch oralig'i ko'rsatilmagan) [8, 17,22,41,66,72].

Afrikalik populyatsiyalarda glaukomaning ko'proq agressiv kechishi va erta boshlanishi kuzatiladi, shuningdek, so'nggi o'n yillik tadqiqotlar Sahara janubidagi Afrika mamlakatlarida glaukomaning yuqori tarqalishini tasdiqlaydi. Masalan, Keniya, Nakuru okrugida 50 yoshdan oshganlar orasida glaukoma tarqalishi 4,3% ni tashkil qilgan (95% ishonch oralig'i [IO] 3,5–5,9). Nigeriyada 40 yoshdan oshgan aholida yoshga standartlashtirilgan

glaukoma tarqalishi 5,0% (95% IO 4,6–5,5) bo'lgan. Gonioskopiya o'tkazilgan bemorlar orasida 86% da ochiq burchakli glaukoma, 14% da yopiq burchakli glaukoma aniqlangan. [1,25,37,76] Nigeriyaning janubi-g'arbiy qismida o'tkazilgan boshqa tadqiqotda glaukoma tarqalishi 7,3% (95% IO 5,5–9,1) ni tashkil qilgan, bunda birlamchi ochiq burchakli glaukoma (BOBG) 6,2% (95% IO 4,5–7,8), birlamchi yopiq burchakli glaukoma (BYBG) esa 0,2% (95% IO 0,0–0,6) bo'lgan [4,16,31,44,52].

Shunga o'xshash natijalar Gananing Tema shahrida qayd etilgan: glaukoma tarqalishi 6,5% (95% IO 5,8–7,1), BOBG — 6,1% (isnohnch oralig'i ko'rsatilmagan), BYBG — 0,2% (isnohnch oralig'i ko'rsatilmagan). Keniya, Nakuru okrugida 50 yoshdan oshganlarda glaukoma tarqalishi yana 4,3% (95% IO 3,5–5,9) ni tashkil qilgan [53,55,67,69,81].

Shimoliy Italiyada birlamchi ochiq burchakli glaukoma (BOBG) tarqalishi 1,9% (95% IO 1,5–2,4), birlamchi yopiq burchakli glaukoma (BYBG) esa 0,6% (95% IO 0,4–0,9) bo'lgan, 40 yoshdan oshgan aholida.

Rossiya, Ufa shahrida o'tkazilgan so'nggi tadqiqotda BOBG tarqalishi 3,2% (95% IO 2,7–3,7), BYBG esa 1,2% (95% IO 1,0–1,5) bo'lgan [23,57,74,78–83].

Shimoliy Irlandiyada 50 yoshdan oshganlar orasida glaukoma tarqalishi 3,2% (95% IO 2,6–4,0) ni tashkil qilgan.

Ba'zi mamlakatlarda mavjud milliy dori-darmon retseptlari registrari butun populyatsiya bo'yicha epidemiologik tadqiqotlar o'tkazishga imkon beradi. Ushbu metodologiya bemorlarga belgilangan dorilar soniga asoslanadi va odatda kasallikning turkumlari bo'yicha farqlashni nazarda tutmaydi. Shu usul bilan aniqlanishicha, 50 yoshdan oshganlar orasida glaukoma tarqalishi Norvegiyada 3,7%, Daniyada 3,8%, 40 yoshdan oshganlar orasida Shotlandiyada 2,2% ni tashkil qilgan (ishonch oralig'i ko'rsatilmagan) [6,8,67,75,78,82, 83].

Ta'kidlash joizki, ushbu metod faqat glaukoma terapiyasini olayotgan bemorlarni hisobga olgani sababli, olingan ko'rsatkichlar kasallikning haqiqiy tarqalishini pastroq ko'rsatishi mumkin [3,15,37,46,75].

Oxirgi chop etilgan Avstraliya tadqiqotida 40 yoshdan oshgan mahalliy aholisi va 50 yoshdan oshgan no-muhalliy aholisi kiritilgan. Tasdiqlangan va ehtimoliy glaukoma umumiy tarqalishi no-muhalliyalarda 3,4% (95% ishonch oralig'i [IO] 2,7–4,3), mahalliy aholida esa 1,6% (95% IO 1,1–2,3) ni tashkil qilgan [16,23,37,41,77,81].

Mahalliy aholida glaukomaning nisbatan past tarqalishi ehtimol genetik omillar va bu guruhdagi umr ko'rish davomiyligining qisqaroqligi bilan bog'liq.

Qiziqarli jihati shundaki, glaukoma tashxisi qo'yilgan no-muhalliy ishtirokchilarning deyarli yarmi va mahalliy aholining taxminan uchdan ikki qismi ushbu kasallikdan xabardor bo'lmagan.

2020 yilda ko'rish qobiliyatining yo'qolishi bo'yicha ekspertlar guruhi butun dunyo bo'yicha

glaukomadan ko'rlik holati 3,6 million kishini tashkil qilganini hisoblagan (≥ 50 yosh; 95% IO 2,8–4,4). Bu ko'rsatkich kataraktadan keyin ko'rlikning ikkinchi eng keng tarqalgan sababi va dunyoda o'rta va og'ir ko'rish buzilishlarining to'rtinchi eng keng tarqalgan sababidir [26,33,37,39,42,56,64,83].

So'nggi o'n yillikda 50 yoshdan oshganlar orasida glaukoma sababli ko'rlikning umumiy tarqalishi dunyo bo'yicha $-8,3\%$ ga kamaygan (95% IO $-9,8$ dan $-7,0$ gacha). Biroq aholining o'sishi va qarishi tufayli, ushbu kasallik natijasida ko'r bo'lgan odamlar soni $18,7\%$ ga oshgan (95% IO 16,9–20,4) [41,44,57,61,73,80].

Glaukoma dunyoda ko'rlikning ikkinchi eng muhim sababi va ko'rish buzilishlarining to'rtinchi eng muhim sababidir. Aholi sonining o'sishi va umr ko'rish davomiyligining ortishi natijasida, rivojlangan glaukoma sababli ko'r bo'lganlar soni keyingi o'n yilliklarda ortib boradi [4,8,14,22,45].

Garchi ko'plab mintaqalarda glaukomaning tarqalishi bo'yicha populyatsion tadqiqotlar cheklangan bo'lsa-da, baholashlarga ko'ra, birlamchi glaukoma bilan yashovchi kattalar ko'pincha

Afrika yoki Osiyoda istiqomat qiladi. Kasallikning tarqalishi va rivojlanib, rivojlangan bosqichga o'tish xavfi yosh bilan ortadi. Birlamchi ochiq burchakli glaukomaning dastlabki bosqichlarida simptomlar yo'qligi va oftalmologik yordamga kirishdagi ko'plab to'siqlar, hatto yuqori daromadli mamlakatlarda ham, bemorlarning katta qismining aniqlanmaganligiga olib keladi.

Shunday qilib, adabiyotlar tahlili ko'zning anatomiyasi va fiziologiyasidagi o'zgarishlar patogenezida birlamchi glaukoma (BG) rivojlanishiga hissa qo'shadigan bir nechta omillarning (genetik, immunologik, qon tomir, oksidlovchi va boshqalar) muhimligini ko'rsatadi. Ularning individual ahamiyati o'zaro bog'liq, ammo yetarlicha tushunilmagan. BGni ko'z ichi bosimining o'zgarishi, qon ta'minotining buzilishi va progressiv endotelial disfunktsiya natijasida kelib chiqadigan, ko'ruv nervining atrofik shikastlanishi bilan birga keladigan umumiy, degenerativ, yoshga bog'liq va genetik jihatdan aniqlangan kasallik sifatida tavsiflash mumkin.

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