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MODERN UNDERSTANDING OF ISCHEMIC HEART DISEASE AS A GLOBAL MEDICO-SOCIAL PROBLEM**Qosimov Iqboljon Sodiqjon ugli**

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Abstract: English: Background: Ischemic Heart Disease (IHD) remains the leading cause of mortality and disability worldwide, presenting a formidable challenge to healthcare systems and economies. This review article analyzes the modern epidemiological trends of IHD, highlighting its shift from a "disease of affluence" to a primary burden in low- and middle-income countries. Methods: A comprehensive review of current literature (2019-2024) was conducted using databases such as PubMed, Scopus, and WHO reports. The analysis focused on prevalence, modifiable and non-modifiable risk factors, and the socio-economic impact of the disease. Results: Recent data indicates that IHD accounts for approximately 16% of total global deaths. The "epidemiological transition" has led to a surge in cases in developing nations due to urbanization, sedentary lifestyles, and dietary changes. Beyond traditional risk factors (hypertension, diabetes), psychosocial stress and environmental pollution are emerging as significant contributors. The economic burden is substantial, driven by direct healthcare costs and loss of workforce productivity. Conclusion: IHD is not merely a medical condition but a complex social problem requiring multi-sectoral preventive strategies. Future management must integrate advanced therapeutic interventions with broad public health policies targeting lifestyle modification and social determinants of health.

Keywords: Ischemic heart disease, cardiovascular epidemiology, global health, risk factors, medico-social problem, prevention, coronary artery disease.

YURAK ISHEMIK KASALLIGI GLOBAL TIBBIY-IJTIMOY MUAMMO SIFATIDA ZAMONAVIY QARASHLAR

Annotatsiya: Kirish: Yurak ishemik kasalligi (YIK) butun dunyo bo'ylab o'lim va nogironlikning asosiy sababchisi bo'lib qolmoqda hamda sog'liqni saqlash tizimlari va iqtisodiyotlar oldiga jiddiy vazifalar qo'yimoqda. Ushbu sharh maqolasi YIKning zamonaviy epidemiologik tendensiyalarini tahlil qilib, uning "bo'ylab kasalligi"dan past va o'rta daromadli mamlakatlarning asosiy yukiga aylanganini yoritib beradi. Usullar: PubMed, Scopus va JSST hisobotlari kabi ma'lumotlar bazalaridan foydalangan holda so'nggi adabiyotlar (2019-2024) keng qamrovli tahlil qilindi. Tahlil kasallikning tarqalishi, o'zgartirish mumkin bo'lgan va mumkin bo'lmagan xavf omillari hamda kasallikning ijtimoiy-iqtisodiy ta'siriga qaratildi. Natijalar: So'nggi ma'lumotlar shuni ko'rsatadiki, YIK global o'limlarning taxminan 16 foizini tashkil qiladi. "Epidemiologik o'tish" urbanizatsiya, kam harakat turmush tarzi va ovqatlanishdagi o'zgarishlar tufayli rivojlanayotgan mamlakatlarda kasallanishning keskin oshishiga olib keldi. An'anaviy xavf omillaridan (gipertoniya, diabet) tashqari, psixosotsial stress va atrof-muhitning ifloslanishi muhim omillar sifatida namoyon bo'lmoqda. Iqtisodiy yuk bevosita davolash xarajatlari va mehnat unumdorligining yo'qolishi hisobiga juda yuqori. Xulosa: YIK shunchaki tibbiy holat emas, balki ko'p tarmoqli profilaktika strategiyalarini talab qiluvchi murakkab ijtimoiy muammodir. Kelajakdagi boshqaruv ilg'or terapevtik aralashuvlarni turmush tarzini o'zgartirish va salomatlikning ijtimoiy determinantlariga qaratilgan keng jamoat salomatligi siyosati bilan birlashtirishi kerak.

Kalit so‘zlar: Yurak ishemik kasalligi, yurak-qon tomir epidemiologiyasi, global salomatlik, xavf omillari, tibbiy-ijtimoiy muammo, profilaktika, koronar arteriya kasalligi.

СОВРЕМЕННОЕ ПРЕДСТАВЛЕНИЕ ОБ ИШЕМИЧЕСКОЙ БОЛЕЗНИ СЕРДЦА КАК ГЛОБАЛЬНОЙ МЕДИКО-СОЦИАЛЬНОЙ ПРОБЛЕМЕ

Аннотация: Введение: Ишемическая болезнь сердца (ИБС) остается ведущей причиной смертности и инвалидности во всем мире, представляя собой серьезную проблему для систем здравоохранения и экономики. В данной обзорной статье анализируются современные эпидемиологические тенденции ИБС, подчеркивается ее переход от «болезни достатка» к основному бремени в странах с низким и средним уровнем дохода. Методы: Был проведен всесторонний обзор современной литературы (2019-2024 гг.) с использованием таких баз данных, как PubMed, Scopus и отчеты ВОЗ. Анализ был сосредоточен на распространенности, модифицируемых и немодифицируемых факторах риска, а также на социально-экономических последствиях заболевания. Результаты: Последние данные показывают, что на долю ИБС приходится примерно 16% всех смертей в мире. «Эпидемиологический переход» привел к всплеску заболеваемости в развивающихся странах из-за урбанизации, малоподвижного образа жизни и изменений в питании. Помимо традиционных факторов риска (гипертония, диабет), важными факторами становятся психосоциальный стресс и загрязнение окружающей среды. Экономическое бремя является существенным, что обусловлено прямыми расходами на здравоохранение и потерей производительности труда. Заключение: ИБС — это не просто медицинское состояние, а сложная социальная проблема, требующая многосекторальных профилактических стратегий. Будущее лечение должно интегрировать передовые терапевтические вмешательства с широкой политикой общественного здравоохранения, направленной на изменение образа жизни и социальные детерминанты здоровья.

Ключевые слова: Ишемическая болезнь сердца, сердечно-сосудистая эпидемиология, глобальное здоровье, факторы риска, медико-социальная проблема, профилактика, ишемическая болезнь.

Introduction

Ischemic Heart Disease (IHD), also known as coronary artery disease, stands as the towering giant of global morbidity and mortality. Despite significant advancements in diagnostic technologies and therapeutic interventions over the last half-century, IHD remains the single largest killer worldwide. According to the World Health Organization (WHO), cardiovascular diseases (CVDs) are the number one cause of death globally, taking an estimated 17.9 million lives each year, with IHD accounting for the majority of these deaths.

Historically, IHD was perceived as a disease of the industrialized West, associated with affluence, high-fat diets, and aging populations. However, the 21st century has witnessed a dramatic shift in this paradigm. The burden of IHD has rapidly translocated to low- and middle-income countries (LMICs), including the Central Asian region. This phenomenon, known as the "epidemiological transition," is driven by rapid urbanization, globalization of unhealthy lifestyles, and aging demographics.

The significance of IHD extends far beyond clinical cardiology; it is a profound medico-social problem. It affects individuals during their most productive years, leading to premature disability, loss of workforce, and catastrophic healthcare expenditures that can push families into poverty. This review aims to synthesize current data on the global burden of IHD, analyze the evolving spectrum of risk factors, and discuss the social implications that necessitate a comprehensive public health response.

Epidemiology: The scale of the problem

Global Mortality and Prevalence The Global Burden of Disease Study 2019 highlighted that the number of prevalent cases of total CVD nearly doubled from 271 million in 1990 to 523 million in 2019. IHD is the leading component of this burden. In 2020, approximately 126 million people were living with IHD globally. The age-standardized death rates have declined in high-income countries due to better acute care and preventive measures (like statin use and smoking cessation), but they have plateaued or increased in many developing regions.

Regional Disparities In Central Asia and Eastern Europe, CVD mortality rates remain among the highest in the world. This disparity is attributed to a combination of high prevalence of uncontrolled hypertension, high smoking rates among men, and dietary patterns high in salt and saturated fats. Furthermore, access to advanced interventions like Percutaneous Coronary Intervention (PCI) and cardiac rehabilitation is often unequal, exacerbating the mortality gap between urban and rural populations.

Evolving risk factors

While the classic Framingham risk factors (hypertension, hyperlipidemia, smoking, diabetes, obesity) remain the cornerstone of IHD pathogenesis, modern research has expanded the understanding of risk.

Behavioral and Metabolic Drivers The global obesity epidemic is a major driver of IHD. The shift towards processed foods and sedentary behaviors—exacerbated by the digital revolution—has led to a surge in Type 2 Diabetes Mellitus. Diabetes acts as a "risk multiplier," significantly accelerating atherosclerosis and worsening outcomes after myocardial infarction.

Psychosocial Factors Modern life is characterized by chronic psychosocial stress, social isolation, and anxiety. Recent guidelines from the European Society of Cardiology (ESC) recognize stress as a modifiable risk factor. Chronic stress activates the sympathetic nervous system and the hypothalamic-pituitary-adrenal axis, promoting inflammation and endothelial dysfunction.

Environmental Determinants Air pollution is now established as a major cardiovascular risk factor. Fine particulate matter ($PM_{2.5}$) can penetrate the alveolar barrier, triggering systemic inflammation and oxidative stress. For residents of rapidly industrializing cities, environmental exposure may contribute significantly to IHD risk, independent of traditional lifestyle factors.

Medico-social impact

The designation of IHD as a "medico-social" problem stems from its profound impact on society's structure and economy.

Economic Burden The economic cost of IHD is twofold: direct and indirect.

Direct costs - Hospitalizations, surgeries (CABG, PCI), and lifelong pharmacotherapy.

Indirect costs - Productivity loss due to premature death and disability (disability-adjusted life years - DALYs). In many nations, CVD costs consume a significant percentage of the GDP.

Quality of Life and Disability - Survivors of acute myocardial infarction often develop heart failure, which severely limits physical activity and quality of life. This requires long-term social support, rehabilitation services, and changes in employment status, placing a burden on social security systems.

Prevention and management strategies

Addressing IHD requires a shift from a purely "curative" model to a "preventive" one.

Primordial and Primary Prevention - This involves preventing the emergence of risk factors in the first place. Public health policies such as taxes on sugary beverages, tobacco control laws, and creating pedestrian-friendly cities are essential. Education on healthy lifestyles must begin in childhood.

Integrated Clinical Care - Effective management requires access to essential medicines (aspirin, statins, beta-blockers) and technologies. The "Polypill" strategy—combining multiple medications into one pill—has shown promise in improving adherence in low-resource settings.

Digital Health Solutions - Telemedicine and mobile health apps offer new avenues for monitoring patients with IHD, promoting medication adherence, and delivering lifestyle counseling remotely, which is particularly valuable for reaching rural populations in Uzbekistan.

Conclusion

Ischemic Heart Disease is a complex pathology lying at the intersection of biology, behavior, and society. It is no longer just a disease of the elderly or the wealthy; it is a global crisis affecting all demographics. The modern understanding of IHD emphasizes that while medical treatment is vital, sustainable reduction in morbidity can only be achieved through comprehensive social and public health interventions. Healthcare professionals, including faculty therapists, play a crucial role not only in treating the individual patient but also in advocating for societal changes that promote heart health.

Strengthen primary healthcare systems to detect and manage hypertension and diabetes early.

Implement aggressive anti-smoking campaigns and air quality regulations.

Promote interdisciplinary research on the specific genetic and environmental determinants of IHD in the local population.

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