

Gerontological and Geriatric Aspects of Prevention of Non-Communicable Diseases: Current Problems from the Data of Epidemiological Situations in the World

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Abstract – The article provides an overview of new research in the field of gerontology and geriatrics. It is indicated that the epidemiology and prevention of chronic non-infectious diseases (NIDs) remains insufficiently studied in the population of the adult age group, namely in the elderly and the late elderly. The elderly and the late elderly living in the arid regions of Uzbekistan have practically no such studies. It has been confirmed that, in the elderly and the late elderly population, the leading causes of “killers” are CHNIHs and their risk factors, and not external causes, and their place is steadily growing. These losses can be reduced with a reserve of preventive medicine.

Key words: Gerontology and geriatrics, prevention, risk factors, non-infectious diseases, epidemiological situations, healthy lifestyles, pernosological diagnostics, control of age associated diseases.

I.Introduction

The topic touched upon in our country is relevant, moreover, day after day, the mission under the supervision of the President of the country, this problem is actualized. All scientific developments in our Republic and / or in the regions of the country, of course, should serve to solve the problems noted by

the decree of the President of the Republic of Uzbekistan No.UP-4947 of February 7, 2017 "On the strategy of actions for the further development of the Republic of Uzbekistan", Resolution of the President of the Republic of Uzbekistan No. PP-3071 of June 20, 2017 "On measures for the further development of specialized medical care for the population of the Republic of Uzbekistan for 2017-2021" and in other regulatory documents.

II.Literature review

Studies of many domestic and foreign scientists are devoted to the study of population mechanisms and optimization of prophylaxis in chronic non-infectious diseases (NID). Taking into account the negative epidemiological trend and the absence of effective systems of "targeting" population research and coordination of preventive measures in the fight against chronic diseases throughout the world, including in our country, much attention is paid and vigorous action is being taken to address screening, prenosological prevention and control of noncommunicable diseases. Purpose: To study the results of modern latest research in the field of epidemiology and preventive medicine conducted among the elderly and the late elderly population to optimize the work with risk factors for chronic non-infectious diseases in elderly and late elderly people. The materials of the research were large-scale epidemiological studies carried out in different climatic, meteorological, socio-economic conditions. The data were examined and summarized.

III.Analysis

A concept for the prevention of chronic diseases has been determined and a priority task for the development of healthcare in Uzbekistan in the coming years is the implementation of the WHO European policy "Health 2020". In 2014, a national strategy for the prevention of risk factors (RFs) for CHNIHs for 2014-2020 was developed using the WHO STEPS methodology. In 2014, a study of risk factors for CHNIH was conducted throughout the republic among the population aged 18 to 64 years. It has already been shown that almost 70% of deaths from these diseases are preventable (quoted from Tsoi E. 2015).

The President of the country personally instructed the Ministry of Health to develop an action program in the field of prevention, promotion of a healthy lifestyle and control of RF of major cardiovascular and / or non-communicable diseases. Each group of the population is characterized by a specific set of RF CHNIH or death from them. External causes of death and diseases of the circulatory system together account for 72% of all deaths among young people,

while in Western European countries this share fluctuates in the range of 45-60%. At the same time, both in primary prevention and in secondary prevention, the main efforts are aimed at combating FR, which are studied and identified in epidemiological studies.

.....At the same time, it must be admitted that these issues have been studied in modern research mainly among the working-age population. The epidemiology of FR CHNIH among the older age groups of the population is far from being studied enough, and in the elderly living in arid zones / regions of Uzbekistan, there are practically no such works. The results of different researchers, where clinical non-standardized and non-standardized methods are mainly used on this issue, are sometimes contradictory and lead to difficult-to-compare patterns. In the overwhelming majority of climatic and geographic regions of the world, including in the unfavorable ecological regions of our country, in particular in the conditions of the sharply continental climate of the Fergana Valley and in the arid zone of Bukhara, it is not yet clear which risk factor (the main "target" of preventive programs) is decisive in development of CHNIH in the elderly and late elderly population.

Consequently, the problem of the epidemiological study of gerontological and geriatric aspects of the prevention of chronic diseases in recent years all over the world, including in Uzbekistan, has become a very high priority and urgent, to solve it requires special scientific and practical approaches. One of the founders of the preventive direction in medicine M.Y. Mudrov stated: "The task of the doctor is not so much to cure diseases as to prevent them, but most importantly to teach patients to take care of their health." [1] This wise saying is especially relevant to this day in addressing the gerontological and geriatric aspects of the prevention of chronic diseases in terms of early prediction and identification of the causes of tragic deaths among the elderly and the late elderly. [2]

Be that as it may, mortality of older people from external causes in the world remains high. However, in the role of "main killers", it is not these reasons that are growing more and more, but CHNIH and their FR, and there are considerable reserves for its reduction in the arsenal of preventive medicine.

Thus, among the elderly and the late elderly, there are fewer deaths from traffic accidents, homicides and suicides, and non-infectious pathologies significantly impair the quality of life of people of gerontological (60-74) and geriatric (75-80 years and more) age and represent a serious problem for the

healthcare system. [13,4,5,6,7] They are responsible for 86% of deaths (WHO, 2008).

Davidova S.N. et al (2009) analyzed the data on these diseases for the city of Yakutsk in the Russian Federation, and a comparison of the results obtained with the WHO data for the European Region showed, in general, the following comparable picture: cardiovascular diseases (CVD) according to WHO data and according to researchers, respectively percent of all diseases and percent of total mortality - 23.1% and 18.8%, 52.1% and 48.5 each; oncological diseases - 11.2% and 10.4%, 19.2% and 18.5%, for respiratory diseases - 5.8% and 10.6%, 41% and 25%.

The following 7 aspects were noted as the main risk factors for their occurrence: arterial hypertension (AH) -10.8%, tobacco smoking (12.3%), alcohol (10.2%), hypercholesterolemia (HCS) -8.7%, overweight (OW) -7.8%, low consumption of vegetables and fruits (LCVF) -4.4%, and physical inactivity (3.5%). The deadly quartet in the studied region was a combination of hypertension, HCS, diabetes mellitus and obesity: in patients suffering from hypertension and coronary artery disease who continued to smoke, cerebral stroke developed 7 times more often and myocardial infarction occurred 3 times more often. [8]

Avdeeva M.V., Lobzin Y.V. and Luchkevich V.S. (2013) analyzed the consolidated annual reporting forms No. 68 of 22 health centers for the adult population of St. Petersburg for the last four years. 65.6% and 80.8% of the citizens who applied had FR of CHNIH and it was summarized: reporting form No. 68 (information on the activities of the health center) does not reflect the real state of health of citizens, since it does not take into account the structure of FR and their relationship with CHNIH; The prospect of reducing the incidence and mortality of the population from chronic diseases is largely determined by the effectiveness of the functioning of their primary prevention systems.[9] Undoubtedly, as it was already emphasized above, the problem of prevention of chronic diseases is relevant in many countries of the world, including Uzbekistan. For the solution, innovative technologies are used that allow organizing preventive counseling of the population in places of their mass presence, followed by remote interaction between the doctor and the patient in order to increase the effectiveness of both the treatment of patients with chronic diseases and the correction of their risk factors.

IV. Discussion

The paradigm of health care is changing all over the world from the therapy of pathologies to their prevention and maintenance of population health, from the idea to the implementation and promotion of effective preventive programs of NCDs in all groups of the population, including people of gerontological and geriatric age [10]. The concepts of mHealth ("mobile health care") have been formed and the prospects of its use have been shown [11,12,13,14,15].

Therefore, in the process of developing and implementing the above technologies and algorithms for providing assistance to the population, in particular to elderly and late elderly people, the lack of a scientifically grounded and epidemiological base is the reason for not high efficiency.

It is important to note that the diagnosis of CHNIHs occurring in old and senile age is often difficult, in more than half of patients these pathologies are diagnosed late or not diagnosed at all, therefore, undoubtedly, aspects of early detection and prevention of CHNIH are very important [16,17,18]. In population studies, it has been shown that in most cases, some CHNIHs begin in childhood and young age, their manifestations can persist in the elderly.

This statement, for example, is fully confirmed in epidemiological studies of the following authors: Braman S. (2006), Battaglia S., et al (2016), Oraka E. Et al. (2012), Wilson D. et al (2005), Yanez A. et al (2014), and Emelyanova A.V., (2016): only bronchial asthma (BA) in various countries of the world suffers from about 300 million people[19]; The prevalence of asthma in the elderly (65-74 years) and late elderly (75 years and older) age ranges from 1.8% to 14.5% in the population [19,20,21,22,23,24]; This disease in St. Petersburg affects 4.2% of men and 7.8% of women over 60 years old [20].

The following are indicated as the most common reasons for late diagnosis and, accordingly, "non-targeted" prevention of CHNIH in old and senile age: 1) reasons on the part of the patient: depression, social isolation, impaired memory and intelligence, perception of symptoms of CHNIH as a sign of the patient's aging, underestimation objective symptoms / syndromes due to limitation of the patient's physical activity, concomitant diseases, difficulties in the study and interpretation of the function of internal organs [25].

It is concluded that it is necessary to carry out further work to popularize a healthy lifestyle, skills and elements of prevention of chronic diseases, the

formation of motivation to adhere to the principles of proper nutrition and combat the existing FRs. Insofar as despite the small positive dynamics, which consists in a decrease in the prevalence of some RFs of CHNIH (smoking, alcohol consumption), their level among the elderly and the late elderly population still remains high.

The most interesting thing is that in most cases of the diagnosis "CHNIH" can be avoided: the main RF is precisely an unhealthy lifestyle; Regular screening (epidemiological) diagnostics makes it possible to detect CHNIH in the early stages, which is much easier and cheaper to prevent and treat than advanced cases (according to WHO estimates, the total cost associated with dementia alone will more than double by 2030 - up to 2 trillion); it is thanks to timely screening diagnostics (check-anu) that it is possible to identify and prevent almost all CHNIH even at the stage of development, when an elderly patient does not feel any symptoms and will help them cope with the observance of rather simple rules (a healthy lifestyle, regulated preventive examinations, do not go to medical help when a person has already something "baked", etc.). At the same time, it is obvious that the health systems of all countries face new challenges - diseases of the aging world, first of all, CHNIHs, which threaten a long life [26].

At the same time, effective professional medical interventions are also important for the prevention, reduction and control of RF CHNIH and the pathologies themselves. First of all, according to the definition of the US National Institutes of Health, preventive literacy of medical workers and medical literacy of the population today is urgently needed to "save lives, save time, save money," especially for the prevention and control of chronic diseases in the late elderly [27].

The analysis of publications indicates that among the elderly and the late elderly age, every second patient has signs of age-associated disorders; at the age of 60 to 74 years - 44.7%, 75 years and older -60%, also 39.2% of the respondents need preventive measures[28]. We think that these and other above facts could not but rethink the clinicians, which is reflected in the latest recommendations (American, Russian and European) for the prevention of chronic diseases.

Obviously, in order to increase the effectiveness of epidemiological and preventive approaches as a screening method for detecting CHNIH in the elderly and the late elderly population in the regions, aimed at reducing the incidence and / or mortality of the population. Particular attention should be paid to the

quality of population-based preventive research, including medical equipment and training of specialists evaluating the results of screening in primary, secondary and tertiary prevention.

V. Conclusion

Thus, summing up the analysis of the current epidemiological situations in relation to chronic diseases in elderly and late elderly people, it is necessary to state the following: 1) literature data indicate the insufficient effectiveness of the preventive work with the elderly and the late elderly population in relation to chronic diseases. 2) In a situation of a high level of secrecy of gerontological and geriatric pathology, the active introduction in the primary health care system of a system of screening and "targeted" counseling/control of elderly people with problematic spread of CHNIHs and their risk factors expands the availability and coverage of preventive care for patients who constantly need it with CHNIH and / or high-risk population geront. 3) In different regions of the world, screening of elderly people with chronic diseases was carried out with varying efficiency of their detection, both in scientific research and in primary care. This is due to a set of factors, which include the different methodology and motivation of those involved in screening, the degree of their proficiency in skills and technologies (unified and standardized epidemiological research methods) of screening/prevention. 4) Different countries are testing different models of interaction between primary health care and the scientific preventive service in relation to CHNIH in the elderly. The choice of the country's regions of the way to implement the "preventive roadmap" is associated with the level of development of the regional system of preventive medicine, its readiness for scientific changes, regional capabilities, as well as understanding/presentation of the tasks outlined in the individual/regional "screening roadmap" in relation to chronic non-infectious age associated diseases.

In addition, researchers have repeatedly noted that the resulting final data of medical statistics of the real picture of morbidity do not allow identifying those problems, especially regional ones, on which the efforts of the health care system and, most likely, other structures and services to reduce the epidemiological indicators of morbidity and mortality from chronic diseases among the population of elderly and the late elderly age. Consequently, there is no doubt about the need to improve the population accounting of the true epidemiological conditions and situations in this contingent of the population, primarily in relation to the CHNIH of the epidemic disease of the XXI century.

At present, when analyzing "epidemiological endpoints", only official statistics and / or the initial cause are mainly taken into account, and all other diseases (including co morbidity) and risk factors are not, which undoubtedly prevents planning the optimal organization of preventive medical care at all stages. Its provision and the assessment of resource provision to the elderly population with RF, and / or to the patient with CHNIH, medical and preventive reasons in this direction are extremely insufficient, and in the conditions of Uzbekistan, not. From our point of view, in the regions of Uzbekistan, comparative clinical and epidemiological studies with a prophylactic orientation are needed, aimed at clarifying the risk factors for morbidity/mortality for the subsequent correction of the system of true statistical recording of the prevalence of chronic diseases and assessing the contribution/role of individual epidemic causes/conditions to the level and structure of morbidity/mortality from chronic diseases among the population of elderly and late elderly age. They are needed to develop regional approaches to their prevention. To decide on the primary, secondary and tertiary regional prevention of chronic disease in the elderly is a priority and urgent task of preventive science and healthcare in Uzbekistan.

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