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Rheumatic Diseases and Musculoskeletal Disorders in Kyrgyz Republic

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Mini Review

At present, the musculoskeletal disorders (MSDs) and rheumatic diseases (RD) concern to one of the most prevalent pathologies in a modern society. These diseases essentially reduce quality of a life, lead to a significant expenditure of resources on public health services and negatively influence national economy of countries [1-3]. The diseases are caused first of all by the broadest prevalence and variety of rheumatic diseases. RD speed premature death of significant number of population. Obviously, even, if chronic RD does not lead directly to lethality, but, it authentically reduces life expectancy of patients, in particular, due to early athero-thrombosis and the vascular accidents, connected with last (stroke, heart attack). MSDs and RD, as known, demand application of expensive methods of diagnostics and long, often lifelong treatment and the significant expenses for society members. Besides, chronic RD exclude the person from an active life and involves number of people into their orbit – relatives, the medical, social workers, compelled to help patients not only to survive, but also to move. Thus, the economic damage connected with rheumatic diseases is most significant [4-9].

There is a disturbing situation concerning growth of parameters of RD and physical invalidity among children and teenagers, who can still more aggravate in the further the negative demographic tendencies in a population including Kyrgyz Republic. In structure of primary physical invalidity of people, the MSDs and RD take the second place; patient with rheumatoid arthritis (RA) within 3-5 years becomes the invalid of II group. Temporary invalidity at patients with MSDs and RD take the first place among all internal diseases. Thus, in Australia, musculoskeletal diseases are the second most common cause of presentations to a medical doctor and the third leading cause of health system expenditure, with an estimated total cost of over $3 billion in 1993-1994 [6,7]. In England the direct cost of RA was £604,5 million in 1992, the total cost of RA was estimated to be £1,26 billion [8]. The total included cost of RA and osteoarthritis (OA) in the USA was composed of $15, 2 billion (23%) in direct costs and $49,6 billion (77%) in indirect costs in 1992. The analysis of adult population in the United States, newer adjusted estimates for 2015 say that 91.2 million adults either have diagnosed arthritis and/or report joint symptoms consistent with a diagnosis of arthritis [10]. By conservative estimates by 2040: the number of adults with diagnosed arthritis is projected to increase 49 percent to 78.4 million (25.9 percent of all adults).The number of adults with arthritis-attributable activity limitation will increase 52 percent to 34.6 million (11.4 percent of all adults) [11]. Recently conducted large-scale epidemiological studies in Beijing (China), showed that incidence of RD among 10556-interviewed is still high. Forty-three cases of RA were identified with an age-adjusted prevalence of 0.28% (95% CI 0.19%, 0.41%). Gout was diagnosed with a crude prevalence of 0.09% (95% CI 0.05%, 0.17%). Psoriasis was reported in 28 individuals with a prevalence of 0.27% (95% CI 0.18%, 0.38%). This included two cases diagnosed with PsA, resulting in a prevalence of 7.14% (95% CI 0.88%, 23.5%) in psoriasis patients and 0.02% (95% CI 0%, 0.07%) in the general population [12]. In the Russian Federation for 2012-2013 showed that more than 4 million patients are

suffering from osteoarthritis (OA), and more than half of them (2454563) are people in the working age. In the group of inflammatory joint diseases, the leading positions are given to rheumatoid arthritis (RA) in 268,000 patients and 90,000 spondylopartropathy [13].

Rheumatological service of the Kyrgyz Republic as well as all public health services in Central Asia region as a whole has gone through a huge economic and social decline as a result of dissolution of the Union of Soviet Socialist Republics (USSR) and transition of these republics to the market economies. In 1990-2010 there was a mass outflow of highly skilled medical workers to the countries of abroad, which led to significant deprivation of the medical service in these countries. In this period the situation on MSDs and RD develop with negative trend in the Kyrgyz Republic. The growth of heavy forms of rheumatic fever (RF), MSDs and other RD are observed today in this region. The medical and social burden, imposed on a society by RD, was strongly underestimated until the recent time. At present we have insufficient data about influence of pathology of the musculoskeletal system on quality of a life of patients and practically there are no data about true prevalence of RD in all Central Asian regions. The social importance of the rheumatic diseases in Central Asia is defined by growth of primary and general physical invalidity of the children's population, and also by losses of productive ages. The stable growth of primary physical inability among children (+52, 6%) is marked since 1995 to 2007 in the Central Asian countries. Since 1999 in the countries of Central Asia, particularly in Kyrgyz Republic, threat of epidemic flash of acute rheumatic fever (ARF) is observed. According to Association of rheumatologists in Central Asia relative density of rheumatic fever rates grows faster, than number of the children's population (+66,6%), and also concerning all registered illnesses in children's age (+63,6%), and in structure of rheumatic diseases (+16,0%) [14-16]. In the countries of Central Asia there is no opportunity today to lead the analysis of quantitative changes of osteodysplasia and connective tissues dysplasia, infectious arthropathy, osteopathy, chondropathy not only among children, but also among adults. There are no data on primary cases of these diseases, yet no special epidemiological researches on study prevalence of rheumatic diseases were carried out. In the structure of illnesses of joints and backbone, registered in specialized branches of the national centers and scientific research institutes according to Central Asian Association of rheumatologist, degenerative-dysplastic disorders dominate at children (54,2%), and the juvenile arthritis (23%) is on the second place. Rheumatoid arthritis and other chronic arthritis (72,7%) dominate among adults, degenerative-dysplastic disorders (12,8%) are on the second place.

According to data from Association of rheumatologists in Central Asia the number of adult patients with physical invalidity caused by rheumatic diseases has increased for 180 % in this region after dissolution of USSR. Dynamics of growth on the 10.000 population has made up 20,7 % [14-16]. The total number of the registered invalids with MSDs has increased with 267/100.000 population in 1998 up to 388/100.000 population in 2007 (+45,3 %) [16]. In the countries of Central Asia physical invalidity is registered at 30.1% of patients mainly with RA and degenerative-dysplastic diseases of a backbone. This category of patients has made up more than 60 % of all patients with RD.

RD issues have been increasing in scales due to steady increase of suffering number of people. Chronic progressing RD are the reason of invalidity in more than 3,2% of the population in Kyrgyz Republic. According to the statistical reports of Ministry of Health of the Kyrgyz Republic, only for the 1995-2005 the official parameter of the MSDs, calculated for 100 000 population of the country, for the given type of diseases, has been increased for 63,4%. At adults and teenagers the dynamics of growth has made up +69,2%. At children the dynamics of growth of MSDs has made up +41,4% [14-16]. In Kyrgyz Republic, the Youth takes a special place among patients with rheumatic diseases with arthropathy, after clamidiosis infections of urogenital systems, which is very urgent alarm for us. They borrow 5.30% from all RD. Early laboratory diagnosis and treatment of these rheumatic diseases play crucial role in the service health in our country. Certainly, the most authentic data on prevalence of RD among population will be given upon large-scale epidemiological researches. According to preliminary data of the National Center of Pediatric and Child Surgery, already received upon screening of about 1, 2 thousand school children, indicates that more than 40% of children have joints pain and back pain [14-16].

Recently conducted epidemiological studies in the country from 2011 to 2017 showed a high prevalence along with rheumatic fever, MSDsand other RD (up to 12%) in more than 10,000 surveyed. Thus, one of priority directions of modern rheumatology in Kyrgyz Republic areRD and MSDs.

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