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EPIDEMIOLOGICAL ASSESSMENT OF THE COVID-19 SITUATION AMONG THE SPORTS COMMUNITY

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In 2020, the world community faced a problem that affected all aspects of human life, first of all, his health. The pandemic has led to the temporary suspension of people from their normal professional activities, as well as the transition of many processes online. Big-time sports were no exception: since the beginning of 2020, professional athletes have massively refused to travel to competitions, and some organizers have closed access to spectators [1,5].

The spread of the coronavirus has had a strong impact on the global sports movement. Many international competitions and tournaments have been discontinued, canceled or postponed indefinitely, including the French Open tennis tournament, the Masters Golf tournament in Augusta, the Olympic Games in Tokyo, the European Football Championship (Euro 2020), the Winter Universiade, Formula 1 stages, the NBA season, the World Curling Championship, New York and Berlin marathons, etc. [2,6]. This led to significant financial losses for the sports industry. This was especially felt by Japan, which invested at least 12.6 billion US dollars in the organization of the Olympic Games [1,3].

Uzbek athletes were unable to take part in 248 international competitions, of which 31 were to be held in Russia. Most of Uzbekistan's athletes were also under strict quarantine, and some (boxing, weightlifting) were at training bases in a closed mode of complete isolation in compliance with all quarantine measures.

The spread of the coronavirus has definitely had a negative impact on the global sports movement. This has particularly affected the economic component of the sports industry, the global value of which is estimated at $756 billion annually [3,5]. Due to the current situation in terms of the prevalence of the disease, not only athletes, both professional and beginners, but also most of the organizers, coaches, all structures including tourism, sports infrastructure, transport, catering, and media broadcasting were seriously affected. Professional athletes are faced with the need to review and organize the training process, maintain physical fitness in isolation, and risk losing sponsors who provide full support in terms of material support. All this contributed to the emergence of social, emotional excitement, followed by a decrease in physical fitness, which also burdened the psychological state of athletes [5].

In terms of Covid-19 prevention, which is also crucially necessary and essential in the sports environment, several measures have been taken. First and foremost, competitions and sports events have been cancelled at all levels. Second, quarantine measures have been implemented, and the mandatory use of masks and respirators has been introduced. Wearing masks is recommended as face protection to prevent the spread of respiratory droplets in the air when people sneeze, cough, or talk. This includes the use of respirators indoors when in contact with others. Third, frequent handwashing with antiseptics is advised to prevent virus transmission. Fourth, strict social distancing is required with athletes keeping a minimum distance of one meter apart from each other regardless of their health status. Fifthly, visits to crowded places should be minimized. This includes restricting access for spectators and fans at competitions, or holding events without spectators. The sixth point relates to travel bans. Flights on planes and other modes of transportation contribute to the spread of the virus, so it is important to minimize travel. The seventh point concerns maintaining athletic fitness during self-isolation, whether at home or in training facilities. This clause aims to maintain the athlete's physical fitness while observing strict quarantine measures. [4,5].

As shown by the epidemiological data presented above, all preventive measures taken were justified and helped to protect the health of athletes and all personnel involved in sports activities, despite their significant impact on sports both economically and socially. This is an epidemiological assessment of the coronavirus situation in world sports, based on statistical data collected from various sports and countries around the world on March 25th, 2020, from the official website https://chempionat.com.

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Due to the lack of official data on the prevalence of the virus among athletes, this website was used as a source for analysis [4,5]. The total number of athletes who became sick by March 25, 2020 was 145. Of these, representatives from Spain (22.8%), Italy (20%), and Great Britain (9.7%) were most severely affected. Countries such as Germany, the United States, Russia, and France had slightly lower numbers of cases, while Germany and the United States (5.5%) and Russia (4.1%) had the lowest rates. The countries with the fewest athletes affected were Argentina (2.1%), Brazil (1.4%), Turkey (1.4%) and Iran (1.4%). Other countries with low numbers include Poland (1.4%), South Korea (1.4%), Portugal (1.4%), Australia (0.7%), Denmark (0.7%), Greece (0.7%), Colombia (0.7%), Serbia (0.7%), Gambia (0.7%), Sweden (0.7%), Norway (0.7%), Estonia (0.7%) and Finland (0.7%). Japan (0.6%), China (0.5%), Mexico (0.4%), Belgium (0.3%) also had low numbers of affected athletes (Fig.1).

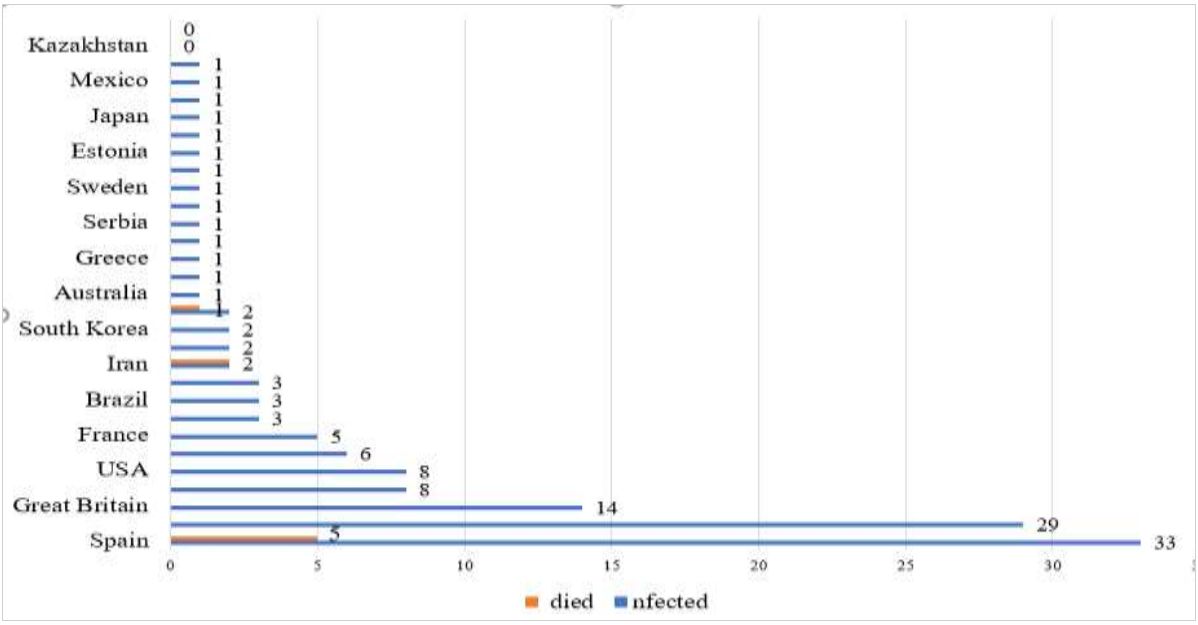

Figure 1. Distribution of Covid-19 athletes affected by country of the world

During this period, 8 patients died, including 2 coaches from Spain and Iran; two sports journalists from Spain were also lost. Losses were noted at Real Madrid, where the former club president, Lorenzo Sanz, died from Covid-19 on March 21st, 2020, at the age of 67. On March 23rd, Espanol goalkeeper Benito Joanega, aged 84, also died [5,6]. As can be seen from the data obtained, those who died were in the older age group with the presence of various chronic conditions, and among younger active athletes, the fatal outcome appeared to be associated with increased infection levels due to team sports or the presence of other chronic foci and infections [3,4,5]. By sports, the distribution was as follows: football players were most noted - 71.0%, followed by basketball players at 15.2%, and cyclists at 4.1%. The following sports were also distributed: hockey at 2.1%, Formula 1 at 1.4% and boxing at 1%, with tennis, cross-country skiing, track and field, volleyball, and handball all at 0.7%. (Fig. 2)

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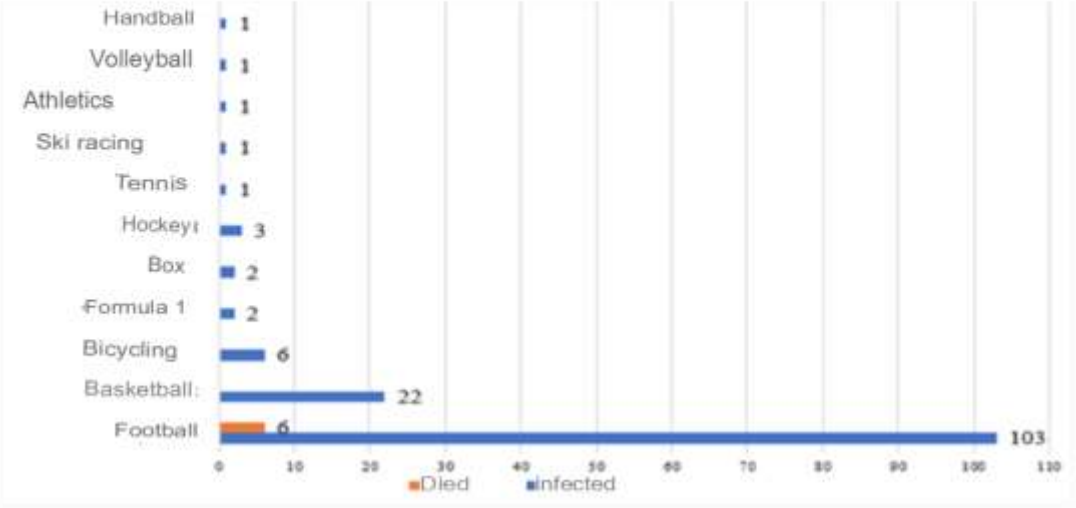

Figure 2. Distribution of Covid-19 athletes affected by sports

There is no publicly available information on athletes who have fallen ill in Uzbekistan or Central Asia. At present, there are no clearly identified materials that can be referenced, so any other data presented later were not included in this analysis. It seems that this information is not disclosed because it represents a "medical secret" in sports. According to WHO, in May 2023, the end of the Covid-19 pandemic was announced [7,9]. Despite this, and the formation of population immunity, the virus continues to circulate and be identified in all countries of the world, albeit in a rather varied form. According to recent epidemiological data, there are significantly fewer cases of serious course and high mortality. In 2022, a new strain of Omicron, Aerys and Pirola, was identified. EG-5 accounted for more than 26% of cases, and it is highly contagious. The nature of the disease's clinical course is mild, with minor throat pain, cough, and runny nose over a short period. These same symptoms characterize the Pirol strain. The Kraken strain is particularly dangerous, as it has an asymptomatic onset and resistance to the immune response, making it difficult to diagnose and differentiate from influenza and SARS viruses. According to WHO, the Airi virus has been found in 57 countries worldwide, and its danger lies in its ability to affect people with weak immune systems and chronic illnesses. In July 2023, a new coronavirus strain called Pirola was identified. It has a large number of spike protein mutations, making it one of the most infectious strains, and it also has the ability to bypass the immune system gained from vaccination or previous illness. The risk group includes patients with weakened immunity, as well as those with diabetes, cardiovascular and oncopathology, asthma, and obesity [10]. A variety of Covid-19 strains have led to an increase in coronavirus cases worldwide - by 52%, with 850,000 cases reported. In this regard, the WHO called on states to ensure guaranteed access to testing, vaccines, and sequencing services for Covid-19 to track new mutations. The WHO also warned of «Disease X», which is as yet unknown but potentially dangerous, and could cause a new epidemic or pandemic even more dangerous than the coronavirus [11,12].

In order to protect against potential risks of infection, scientists are conducting research to develop diagnostic methods and vaccines that can be used as preventative measures and to predict the main characteristics of potential pathogens. According to N. Dubinin, a medical prevention specialist, vaccination will be the primary measure for protecting against coronavirus. Non-specific measures to prevent coronavirus infection include frequent handwashing, the use of antiseptics, avoiding touching the face with unwashed hands, self-isolation if symptoms of infection appear, and following mask protocols. During the Covid-19 pandemic, athletes around the world have faced significant challenges that have affected all aspects of their professional lives [7,8,9,13]. An epidemiological analysis of the current situation reveals that athletes are vulnerable due to their need for close physical contact and interaction, which can contribute to the spread of the virus. To combat the spread of the disease, it is essential to implement widespread testing for the virus among athletes. This will enable the identification of infected individuals, even those who are asymptomatic, and prevent further transmission. Regular testing aids in the detection of cases early and allows for taking appropriate measures to safeguard the health of both athletes and those in their vicinity. Along with mass testing, providing athletes with access to modern personal protective equipment (PPE) is essential. This includes masks, gloves, and antiseptic solutions. These items should be available during training and competitions to minimize the risk of infection. Athletes should take a proactive approach to their health and well-being by following all necessary safety measures to prevent the spread of COVID-19, including social distancing, isolating if symptoms arise, getting vaccinated on time, and being trained in hygiene rules [1,13]. It's also important for athletes to monitor their health regularly to ensure they are healthy and able to compete safely. Sports organizations and coaches should work closely with athletes to educate them about the risks of the virus and how to take

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appropriate precautions. This will help ensure that athletes are well-informed and prepared to protect themselves and others from the virus. It is also essential to pay attention to the mental well-being of athletes during this challenging time. The pandemic can have a significant impact on their mental health, and coaches and support staff need to be prepared to offer emotional support and counseling when needed. By adopting a holistic approach to athlete health and safety, we can ensure that sports can continue to be enjoyed in a safe and responsible manner. In conclusion, the COVID-19 pandemic has highlighted the challenges that athletes face at the moment. Nevertheless, by taking appropriate preventive measures and following strict protocols, we can reduce the risk of infection and protect athletes. International cooperation and the sharing of experiences are essential in effectively addressing the pandemic and supporting sport during this challenging period.

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