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Opinion Article

COVID-19: Considerations for the Disabled Athlete

COVID-19: Considerações para o atleta com deficiência

Matheus Jancy Bezerra Dantas[1], Thaísa Lucas Filgueira Souza Dantas[1,2], José da Penha Dantas Júnior[3], Leônidas Oliveira Neto[3], José Irineu Gorla[1]

1. Universidade Estadual de Campinas (UNICAMP), Campinas, SP, Brazil.
2. Instituto Internacional de Neurociências Edmond e Lily Safra (ISD), Macaíba, RN, Brazil.
3. Universidade Federal do Rio Grande do Norte (UFRN), Natal, RN, Brazil.

COVID-19 is a new disease caused by a new coronavirus (SARS-CoV-2) with a fast spreading around the world that culmination with the state of Pandemic decreed on March 11, 2020 by the World Health Organization [1]. Studies have shown that a large portion of the population is asymptomatic for this disease, as well as having a low mortality rate. In those who are symptomatic, the main symptoms include the presence of fever and cough that can progress to acute respiratory distress, pneumonia and death [2,3].

Although typical athletes have fewer comorbidities compared to the general population and, therefore, are less at risk of developing serious problems or death when infected with COVID-19 [4].the same cannot be said of athletes with disabilities who have, to a large extent, a health condition that can increase the risk of serious problems or death when infected.

There is currently no data on how COVID-19 affects athletes with disabilities. However, because there is no vaccine and no proven therapies for the treatment of the disease [2] there is a plausible concern that athletes with disabilities may be at greater risk of contracting the infection or have severe manifestations of COVID-19.

This concern is based on the presence of comorbidities such as hypertension, diabetes and cardiovascular disease, associated with a worse prognosis and mortality for COVID-19 [5]. In practical terms, a study by Guo et al. [6] reported an almost two-fold increase in mortality in patients with cardiovascular disease.

Thus, based on these recent findings, the scientific community [5,7,8] has proposed that the course of treatment and the prognosis of COVID-19 must be stratified according to the presence or absence of comorbidities before SARS-CoV-2 infection. Thus, those patients who have acute respiratory failure syndrome (SIRA), a characteristic symptom of COVID-19, but do not have any comorbidities, are stratified in TYPE A patients. Those who, in addition to SIRA also have some comorbidities are classified as TYPE B. Finally, those classified as TYPE C are those that additionally have multiple organ dysfunction. Thus, the higher the classification, the worse the prognosis for the disease [8].

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Correspondence: Matheus Jancy Bezerra Dantas, Av. Antonio Basílio, 4315 Morro Branco 59054-380 Natal RN, E-mail: matheusjancy@gmail.com

Thus, considering the profile of the pathologies of athletes with disabilities [9], the increased relative risk for this population is evident, if they are affected by SARS-CoV-2.

Sports authorities from clubs and associations, the medical department of the National Paralympic Committees and the International Paralympic Committee must be involved in the care of their athletes and must be aware of the COVID-19 prevention strategies, common symptoms for possible treatment options, including risk stratification for each of them, until it can be discussed when this group can be safe to train and participate in sporting events after the reduction of the worldwide epidemiological curve of this infection.

The impact of COVID-19 on paralympic sports

Since the beginning of March 2020, sporting competitions for people with disabilities have gradually been suspended or canceled [10] worldwide. However, in late March, the International Olympic Committee and the International Paralympic Committee announced that the Tokyo 2020 Games would also be postponed and would now take place in 2021 [10].

During the history of the Olympic Games, only three editions were not held and all for reasons of political divergence that ended in Guerra, Berlin 1916, Tokyo 1940 and London 1944. Only this time there is no political divergence, but a war against COVID-19.

Unprecedented in sports history, COVID-19 paralyzed training, national and international competitions. It also suspended or canceled the sporting activities of some international federations for the year 2020, such as that of the Boccia International Sports Federation - BISFed.

Prevention of COVID-19 in disabled athletes

Preservation objective and isolating strategies are relevant aspects for these athletes during this pandemic.

Preservation objective

While the typical athlete may experience only mild symptoms as a result of COVID-19 [4], prevention strategies are necessary for athletes with disabilities who have impaired immune function as a result of disease conditions or medications such as the use of steroid tablets or chemotherapy, with renal or hepatic dysfunction [11,12], cardiovascular diseases [8], lung conditions such as asthma, emphysema or bronchitis [11], cancer [13] and mainly with neurological damage [11] because there is no scientific clarity on the complications arising from the infection.

However, some neurological conditions are associated with weakness in the swallowing mechanism (bulbar weakness), weakness of the respiratory muscles or cardiac function, motor neuron disease and some myopathies [11]. These factors increase the risk of more serious infection.

Thus, it is necessary to reduce the risk of serious infection or death for groups at higher risk [4,12,13] informing about infection prevention as well as maintaining care during the pandemic.

Rev Bras Fisiol Exerc 2020;19(2supl):S30-S34

Strategies for isolating athletes with disabilities

Social isolation has been applied to all people [14,15]. However, for athletes with disabilities with impaired immune function, with kidney or liver dysfunction, cardiovascular disease, cancer or neurological injury, we suggest strengthening home isolation as much as possible. Creating a support network with family, friends and technical committee for all activities that require leaving home.

Family members should leave as little as possible [11,16], even to carry out activities such as going to the supermarket or bakery. Thus, shopping for a longer period minimizes the risk of infection.

Hygiene care must be redoubled and reinforced, including the use of masks, use of gel alcohol, hand washing with soap and water and everything that will be used, from food to items for personal use.

When the athlete needs a caregiver, it is necessary to avoid excessive rotation of these people. Caregivers must also be a sanitary barrier and for this reason they must make use of Personal Protective Equipment (PPE), such as masks and gloves.

The athlete's place of stay during social isolation must always be clean and disinfected. Just like all people who share daily space with the athlete, they must be attentive to all the care mentioned above. We recommend priority attention in social distance for all people with any neurological condition, their caregivers and family members. It is necessary that athletes have constant contact with their doctor, whether private, with their sports team or federation, and that they combine the best way for their family members or friends to get their medical prescriptions.

Athletes with Multiple Sclerosis or other disabilities who use immunosuppressive drugs may be at greater risk of serious illness due to COVID-19 [11]. The additional risk of these treatments is not known, but it must be emphasized that the risk of discontinuing therapy for some patients is high and the consequences can be devastating [11]. Thus, the athlete must be in constant contact with his doctors to deal with the interruption of the use or replacement of immunosuppressants [11,16,17].

Athletes with neuromuscular diseases are a group of individuals in constant need of medical assistance. Thus, they must have extra attention and much more rigorous care with social distance measures, especially when they already use non-invasive ventilatory support equipment.

In periods of disasters and emergency public health, innovations have been implemented, such as telemedicine, which can be used during the COVID-19 pandemic [18], guiding the athletes' visit to the emergency service or not, or in monitoring the evolution of your underlying disease.

Return to training

We suggest that the training conducted during social isolation and the return to training in sports facilities should be decided with the technical and medical team, considering the pathologies and morbidities present in each individual.

Whenever possible to carry out training at home during social isolation, the orientation and monitoring of the training must be carried out by a trai-

ned professional and the information can be provided remotely [4]. Recently published [19] a pre-participation screening the practice of telepresential exercise in face of the pandemic by COVID-19 (SARS-CoV-2), where the following questions are encouraged "Do you feel a sore throat?", "Do you feel cough and sputum production?", "Do you feel fatigued?", "Do you feel short of breath or difficulty breathing?", "Do you feel fever >37,8ºC ?", "Have you had fever for more than three days >37,8ºC?", "Have you had any contact with anyone who has been diagnosed or suspected of the COVID-19?". A positive answer to the last two questions may indicate the need for a medical consultation before performing the exercises.

Certainly, modalities with pathological profiles that have people with disabilities with less risk of complications from COVID-19 should return to training much faster than modalities that have athletes with pathologies with higher risks.

Conclusion

The athlete's day-to-day is training and his life is intrinsically linked to sports equipment, such as fields, tracks, courts and swimming pools. In March 2020, everyone was invited to a big competition against COVID-19 and the final prize is life. The training was replaced by the focus on preventing viral spread with social distance and other common hygiene measures that are the strategies used to win this competition.

Understanding the need for greater attention for athletes with disabilities with pathological profiles that increase the risk of complications in the COVID-19 infection is a need for family members, friends and institutions that work with this audience.

The best advice for everyone is to reduce or avoid the risk of getting the virus.

We will meet in Tokyo 2021.

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