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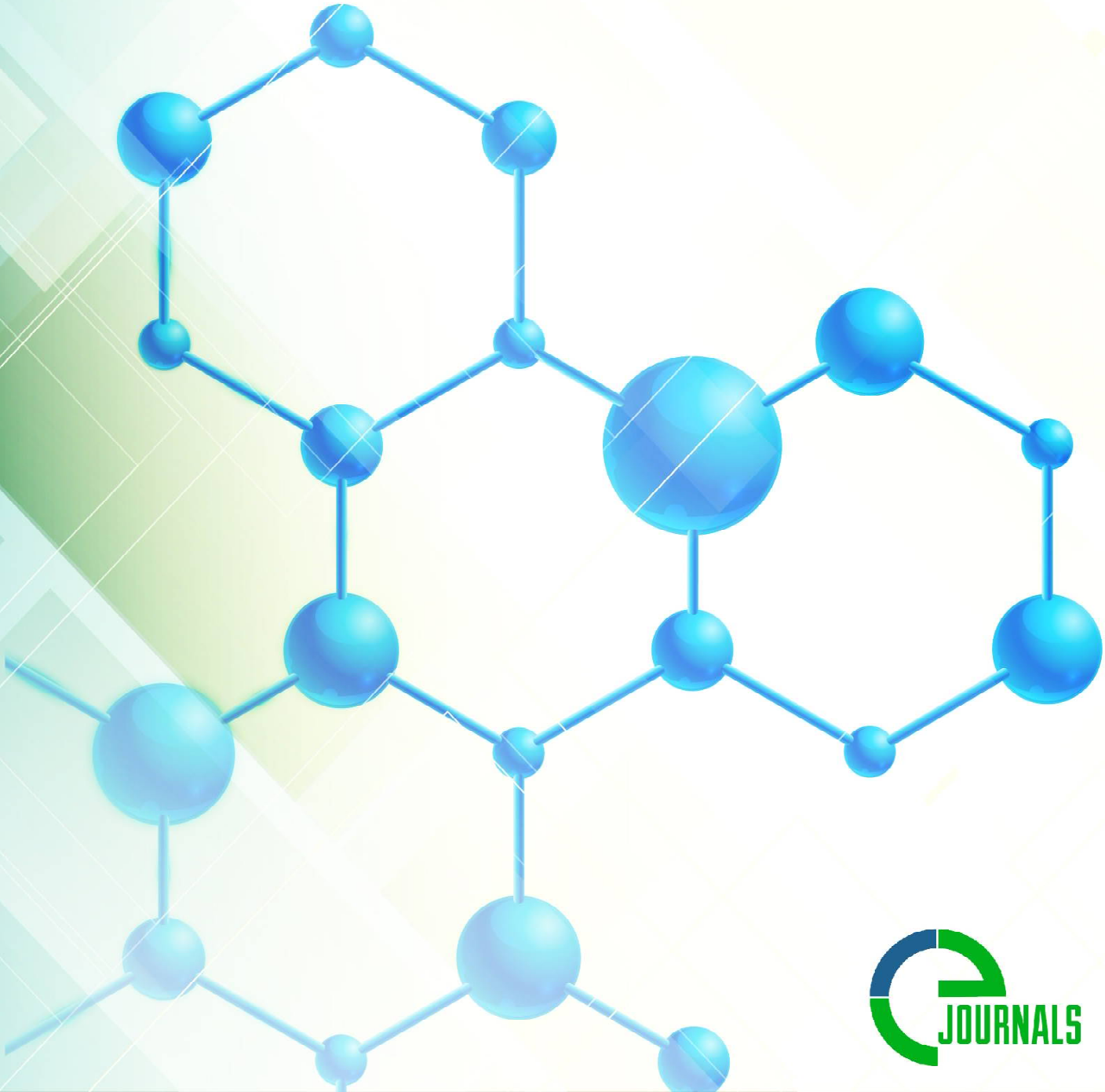

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TREATMENT AND PREVENTION OF INFECTIOUS DERMATOSES IN ATHLETES

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Abstract: Infectious dermatoses that can manifest as vesicles include bacteria, viruses, fungi, syphilis and other infections. In many cases, these infections are easily misdiagnosed. A detailed medical history request is the first step in making a correct diagnosis. Skin infections are common in athletes of all ages, particularly those involved in high-contact sports like wrestling and football. Infections can be transmitted from one athlete to another directly through skin-to-skin contact or indirectly through contaminated objects such as towels, mats, and equipment. After strenuous exercise, athletes enter a brief period of time in which they experience weakened immune resistance and are more susceptible to viral and bacterial infections, in particular URTIs.

Key words: Infectious, skin, dermatitis, athlete, microorganisms, virus, bacteria, diseases, patient, toxin, microbes, staphylococcus, pathogenic.

Sports activities can lead to the development of new or exacerbation of chronic dermatological diseases, which can negatively affect the athlete's results. Professional athletes constitute a unique group of dermatological patients, since almost all of them face skin diseases during their sports careers. There are so-called transitional states, which can be either specific or general, weakening the body and thereby predisposing to diseases. These are the effects of stress, physical overstrain, overwork, unfavorable and dramatically changing environmental conditions, prolonged under-recovery after exertion, hard work, etc. It is shown that the first signs of the disease are manifested primarily when high demands are made on the body. Transitional states are important for pre Prevention and detection of the disease. Athletes whose activities are associated with daily training in swimming pools are exposed to constant contact of the skin with disinfectants that damage the skin, promote dehydration and degreasing of the upper layers of the epidermis, reducing the barrier function of the skin and leading to its dryness.

The spectrum of exogenous factors is wide enough and includes drugs and biological active additives, climatic and geographical living conditions and professional working conditions. Therefore, throughout life, the composition of microorganisms that live on the skin undergoes significant changes. Resident microorganisms have means of protection and aggression, which allows them, on the one hand , to overcome the barriers of the skin and mucous membranes, and on the other to suppress the growth and reproduction of pathogenic microorganisms. Some microorganisms use secreted water- and fat-soluble substances, decay products of keratin and microbes themselves as food sources. They are permanent inhabitants of the skin, do not affect its functional state and do not cause diseases. Other microorganisms produce toxins and ferments that can change the development of dermatoses. A significant number of microorganisms that colonize the skin is conditional. One of the most important functions of normal microflora is its participation in colonization resistance and, by which is meant aset of mechanisms that give stability to microbiocenosis and prevent the host from populating foreign organisms. With a decrease in colonization resistance, there is an increase in the number and

species spectrum of potentially pathogenic microorganisms, translocation through body barriers, the occurrence of endogenous infection or superinfection of diverse localization. In humans, the barrier function is restored by sixty percent after 12 hours, and full recovery takes seventy-two hours. Violations of the integrity of the skin barrier is a significant factor in the development of chronic skin diseases. Violation of the restoration of the epidermal barrier leads to dehydration of the epidermis and the development of severe dry skin. Dry skin is caused by a decrease in the barrier function of the skin, which leads to an increase in transepidermal moisture loss and is manifested by itching, burning and peeling. Dry skin is often susceptible to infection by the bacterial flora. Microorganisms are symbiotically microorganism, forming a stable ecosystem. The quantitative and qualitative composition of individual types of microorganisms is constantly changing, which is the state of skin microbiocenosis. The leading role among bacterial dermatoses belongs to staphylococci, which is due to their wide distribution in the environment, among sick and healthy people. Among staphylococci, representatives of the normal human microbiota are epidermal staphylococcus, and conditionally pathogenic - staphylococcus aureus. Staphylococcus aureus is considered the most dangerous because of the existence of drug-resistant strains. The appearance of strains of microorganisms with signs of pathogenicity with high physical exertion.

Thus, for athletes engaged in several hours daily , changes in biophysical indicators can be more persistent, therefore, due to constant training, restoration to the initial indicators is unlikely. A significant contribution to the protection of the skin from pathogenic microflora is also made by microorganisms representatives of the normal microflora of the skin. It was shown that the most numerous resident groups of microorganisms in this locus are propionic bacteria, staphylococci and yeast . The balance of these microorganisms on the skin is a condition for the well-being of this ecosystem, whereas a deviation from the norm of carriage leads both to the development of various skin diseases and to the manifestation of diseases that initially proceeded subclinically. Pustular skin diseases are urgent public health problem in all countries and ranks first item dermatoses. The data of domestic authors are confirmed by studies of foreign authors, which demonstrated that a change in the balance of normoflora is associated with the development of skin diseases . It has been shown that carriage of cutaneous normoflora in itself provides protection for humans against opportunistic microorganisms by isolating antagonistic substances - the so-called killers. Epidermal staphylococcus produces peptides that are toxic to other organisms, staphylococcus and group A streptococci, which means removal of epidermal staphylococcus, for example, by abuse of topical antibiotics, can lead to the destruction of antimicrobial peptides of this bacterium, which will allow potentially pathogenic organisms to penetrate the skin more effectively.

Conclusions: Thus, the determination of the composition of microbiocenosis in athletes has still not been practically carried out. However, it is known that at the end of a sports career, the health of most professional athletes deteriorates sharply. Determining the composition of the main groups of microorganisms on the skin of athletes will reveal the features of the functional state of the skin in athletes, which may be an important factor in the prevention of dermatological diseases in athletes.

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