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MODERN PRINCIPLES IN THE REHABILITATION OF ATHLETES

Minavarov R.A.

Department of Rehabilitation, Sports Medicine and Traditional Medicine,

Andijan State Medical Institute.

Introduction: It has long been known that the rehabilitation of athletes after injuries includes a set of procedures and measures that help them restore physical and emotional health, as well as athletic fitness in a short time. At the same time, the most interesting for athletes during the rehabilitation period are complex techniques that affect the entire body as a whole, eliminating mechanical damage and restoring metabolic processes, thereby having, in addition to therapeutic, also a preventive effect. At the same time, it should be one important, if not the key, circumstance should be taken into account: the doctor is fighting an athlete's injury (DISEASE), and the final result of all possible therapeutic and preventive measures depends on which side the coach, administrative employee, agent, team, parents of the athlete (if he is young), and sometimes the athlete himself and rehabilitation measures

Keywords: Rehabilitation, athlete, injury, physical health, emotional health.

Unfortunately, until today it is generally believed that any sport is good for health. And even such a seemingly far from useful, sedentary form of entertainment as computer game competitions, which in recent years have been called cyber sports, may be useful for the cardiovascular system due to the release of adrenaline into the blood, as well as stimulation of the nervous system and hypothalamus. Of course, this sport will be useful if "athletes" will take regular breaks to warm up their muscles.

And although any sport before a certain period (transition to sports as a profession) is good for health, however, some types are already highly traumatic in childhood and adolescence, while others require heavy physical exertion, which over time can negatively affect health. And there are also such extreme sports in which an athlete cannot be on the I am 100% sure if he will return home safely [1].

In the literature on sports medicine, you can find a rating of the most beneficial for health sports [1, 5]: running, walking, swimming, game sports (volleyball, tennis, badminton and football).

However, even in these "non-traumatic" sports, injuries await the athlete. So, one of the reasons for premature interruption of training may be various limb injuries. The number of injuries among young athletes specializing in basketball is the largest and amounts to 998 per 1,000 athletes per year. This exceeds injuries in handball (814), volleyball (548), football (492), baseball (387), badminton (204), table tennis (193) and tennis (147) [1, 5, 6, 8].

Consequently, there are not only ups and downs in the career of any athlete. If an ordinary person simply restores motor functions after fractures, dislocations and sprains, then rehabilitation of athletes after injuries is also an opportunity to return to sports activities.

Probably, none of the known methods solves the problem of recovery completely, but in a combination of methods and principles lies the effectiveness of building individual rehabilitation programs.

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The goals of rehabilitation of athletes – in the period after injuries and diseases pursues several goals, the main of which is the most rapid restoration of body functions in the shortest possible time.

The tasks of rehabilitation are generally individual. It all depends on the following factors:

- the nature of the injury;

- dynamics of the recovery process;

- data obtained after the examination;

- type of activity in sports.

During each stage of rehabilitation of athletes in the post-traumatic period, tasks can change. The phase of rehabilitation programs is also changing. So, if earlier the goal of the recovery period was to reduce pain, then this is the elimination of inflammation, normalization of the volume of movement, increase muscle tone, training balance and coordination, accuracy and endurance, which return the athlete to the level of functionality where he was previously.

In addition, the task of rehabilitation is also to form a program that will prevent the occurrence of injury in the future. Rehabilitation of athletes after injuries is the task of an experienced specialist.

In sports practice, especially in working with elite athletes, modern principles of rehabilitation should be implemented in the form of a continuous sequence of steps and actions:

-Stage A – emergency care;

-Stage B – early activation;

-Stage B – individual training.

At the same time, one should be guided by the dominant postulate: sports doctors are

part of the process of medical and sports rehabilitation, when three important tasks are solved:

1. Rehabilitation activities begin as early as possible in order to prevent complications caused by injury (disease).

2. Restoration of the functional capacity of the damaged musculoskeletal system.

3. Maintaining the Athlete's athletic form at such a level that during the rehabilitation period he retains working capacity, the necessary physical qualities (strength, endurance, speed, flexibility, coordination, visualization) and motor skills.

In accordance with the above principles, athletes have phases of rehabilitation after injuries and diseases:

- Medical rehabilitation;

- sports rehabilitation;

- sports training.

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For example, if an athlete's injury is associated with the musculoskeletal system, then in the phase of medical rehabilitation there are periods of immobilization, after immobilization and recovery.

At each phase of recovery, tasks are set that determine the rehabilitation program in the future. They are corrected in the process of dynamic observation.

The rehabilitation program is usually based on a thorough examination, including examination, palpation, determination of muscle tone, skin temperature, volume movements, sensitivity. The mechanism of injury and the specifics of the sport in which the victim is engaged are also being clarified. After that, that post-traumatic rehabilitation is selected for an athlete, which is suitable in his case.

The rehabilitation program should always be individual and based on various criteria. The peculiarity of this program is that it is able to quickly return the athlete to his previous activity.

It should be noted that traumatic injuries of the lower extremities during sports occupy a significant place and significantly affect the performance and quality of life of athletes [1-5, 7]. For example, injuries in the ankle area are 28% of all bone pathology of the lower extremities in athletes in various sports and more than 10% of all injuries of the musculoskeletal system of the population. [1, 3, 4,].

At the same time, the main causes of inadequate rehabilitation treatment, in addition to severity injuries to the musculoskeletal system in athletes are: unreasonably prolonged akinesia associated with joint immobilization, hypokinesia due to bed rest, as well as local changes in tissue structures. All this in combination often leads to the formation of a rough postoperative scar, excessive bone callus, dystrophy of articular cartilage, muscle hypotrophy, wrinkling of the articular bag and the formation of deforming arthrosis of the ankle joint [2, 8].

Consequently, insufficient attention to restorative treatment ultimately affects the quality of social, labor and sports rehabilitation of patients–athletes. Besides, their endurance to physical exertion decreases very quickly, coordination is disrupted movement, the proprioceptive control necessary for practicing is lost, especially in playful and complex coordination sports. For example, deep muscle–tendon–articular sensitivity in the foot–shin segment normally fully ensures unconscious control of the stability and proper functioning of the ankle joint, and also significantly affects the coordination of the athlete's motor skills. Therefore, it is extremely necessary to quickly restore the deficit of proprioception through effective rehabilitation and not to unbalance the complex of special motor skills of each individual Athlete [1, 2, 5, 6, 8].

In the Russian literature [1-4], there is a tendency to a greater extent when the main attention is paid to the inpatient stage of rehabilitation and only in some cases the polyclinic stage is affected. There is a contradiction between the need for rehabilitation of athletes and difficulties with adequate recovery at the polyclinic and, especially, at the training stages of rehabilitation. The elimination of this contradiction is the basis for the prevention of subsequent injuries that occur during physical education and sports [1-5, 8].

Taking into account the above difficulties, the algorithm of medical and sports rehabilitation is formed by five basic principles that allow you to start training and competitions as soon as possible without compromising your health:

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1. Urgency or urgency (emergency first aid, carrying out medical and diagnostic measures, qualified solution of expert issues, as well as the urgency of hospitalization, if necessary).

2. Stages – each injured (sick) The athlete must undergo three stages of rehabilitation: medical rehabilitation, sports rehabilitation and sports training.

Each of the stages, in turn, is divided into periods and has its own goals and objectives, as well as a strictly defined sequence.

3. Complexity and consistency – the use of pathogenetically based biomedical and pedagogical means of recovery: surgical treatment, nutrition, physiotherapy and medicines, methods of psychoregulation, physical exercises, etc.

4. Individualization – selection of restorative remedies specifically for each Athlete, taking into account the nature of the injury and the time that has elapsed since its occurrence, age, qualifications, gender and his personal characteristics, as well as the severity of the local and general reaction of the body to the injury, therapeutic agents and their adequacy (boundary provisions defining the maximum possible painless zone mobility, axial unloading of the joint to painless support; local temperature; swelling and subjective reactions on the different speed of movement of the segments of the limb that make up the joint when approaching the limits of a fixed painless amplitude).

5. Dosage – at the stages of medical rehabilitation and sports training, strictly dosed optimization of the motor regime of the injured limb and dynamic control of the restoration of its function are observed. The algorithm of the medical and sports rehabilitation process takes into account the complex of necessary rehabilitation measures, the timing of their application, as well as the composition of the persons who will carry it out.

This is a rehabilitation coach, a doctor, a massage therapist, a physiotherapist, a chiropractor. The work of these specialists included in the medical and sports rehabilitation plan is organized according to the principle of rehabilitation link. An indicator of the effectiveness of rehabilitation measures is the restoration of a high level of physical and moral–volitional qualities of an Athlete, which, as a rule, is reflected in difficult extreme conditions of competitive activity.

As noted above, the combination of methods and principles is the effectiveness of building individual rehabilitation programs. There are quite a lot of methods in the arsenal of modern rehabilitation to achieve the final result. But if, on the basis of an examination or during treatment, it becomes clear that an intervention is necessary that we cannot provide or do not have the necessary conditions for this, there is always a choice. In this case, it is necessary to recommend to your ward the best ways to solve the problem.

Thus, in the presented article, the author's ideas about the modern principles of rehabilitation of athletes are presented in a discussion mode based on the fundamental principle of interdisciplinarity of the raised issues.

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