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APPLICATION OF "CLAMPING DEVICES" OF LYAPKO IN POST-TRAUMATIC REHABILITATION OF ATHLETES-MONITORS (APPLICATION OF METHODS OF LMM).

BOGDAN KINDZER,

PhD

ORCID 0000-0002-7503-4892, Scopus Author ID 57201425548

Associate Professor of the Department of Fencing,

Boxing and National Martial Arts

Lviv State University of Physical Culture

Lviv, Ukraine

SERGE LITOCH

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Association of Ontario Boxes. Toronto. Canada

HALYNA KINDZER

IT Project manager

Association of Ontario Boxes. Toronto. Canada

TATYANA YURRCHENKO

Student of the Department of Physical Therapy and Ergotherapy

Lviv State University of Physical Culture

Lviv, Ukraine

Introduction. The high pace of development of professional and amateur sport in the modern world makes the actual question of optimization of the functional state of athletes, prevention, and resolution of injuries.

Traumatism is an inalienable and negative part of professional and Olympic sports. The joint efforts of scientists and practitioners in recent years have managed to somewhat reduce the percentage of sports injuries. However, these figures are still rather high.

Correctly applied psychotherapeutic measures during complex physical rehabilitation in the post-traumatic period can achieve a significant reduction in the recovery period of the patient (athlete), and a relatively quick return to professional sports (in the absence of lesions incompatible with sporting activities).

Purpose: to substantiate the necessity of using "Lyapko Applicants" (using the LMM technique) in the complex rehabilitation of athletes injured during training sessions or directly at the competitions and to achieve a rapid restoration of their functional status and return to professional activities.

Key Words: Applicants Lyapko Boxing, Karate, Sports Traumatism.

Methods of research: analysis of documents and literary sources. Sociological research methods (interviews, interviews), pedagogical testing of physical qualities of athletes, testing of physiological systems of the body of athletes using the software-hardware complex "Omega C" [1-3, 9] with the application of Lyapko applicators [10], methods of mathematical statistics.

Presentation of the main research material. The high pace of development of professional and amateur sport in the modern world makes it relevant the question of optimizing the functional status of athletes, prevention, and resolution of injuries. [2, 5]

Traumatism is an inalienable and unfortunately negative part of professional and Olympic sports. According to statistical data obtained from the analysis of literary sources, the average number of sports injuries is approximately 4.7-5 per 1000 people. [6-8]

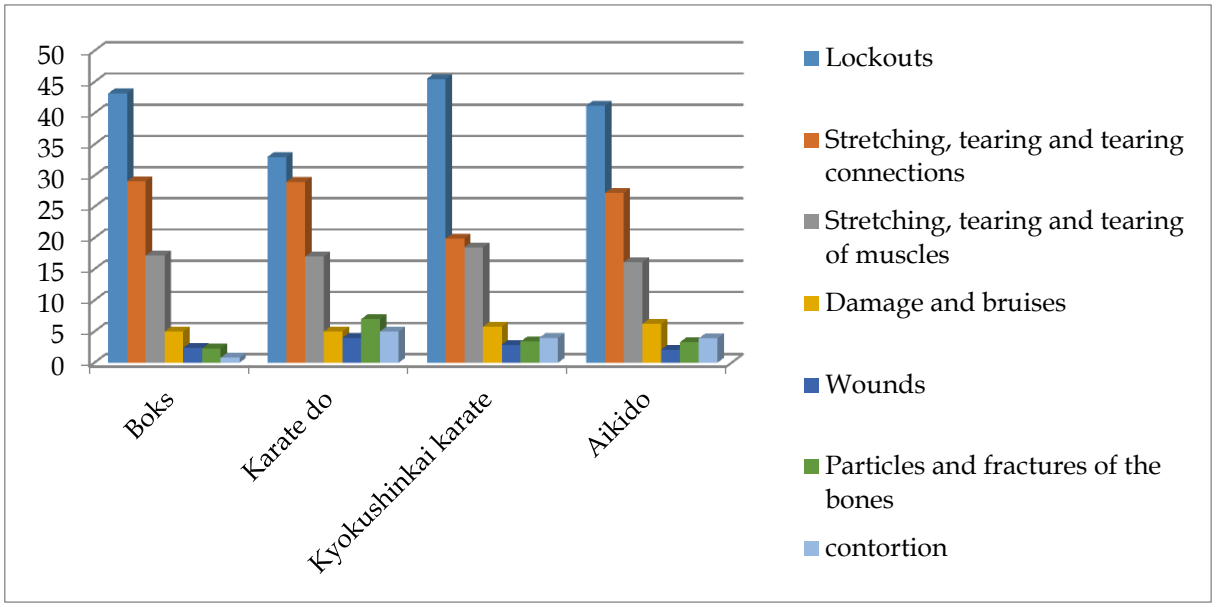
The joint efforts of scientists and practitioners in recent years have managed to somewhat reduce the percentage of sports injuries. However, these figures are still rather high.

Sports rehab is one of the most progressive directions in preventing and maximizing the complete elimination of the effects of sports injuries in order to maintain the health of athletes and their sports longevity. Correctly applied psychotherapeutic measures during complex physical rehabilitation in the post-traumatic period can achieve a significant reduction in the recovery period of the patient (athlete), and a relatively quick return to professional sports (in the absence of lesions incompatible with sporting activities).

For sports injuries in single events characterized by the predominance of closed injuries: sores, stretches, tears and tears of muscles and ligaments. The number of open damage is small, they are mostly attrition and sand.

Figure 1

Distribution of different kinds of sports injuries among the athletes who are polled - single-fighters



Correlation of displacements and fractures in sports injuries, according to various authors 1: 3, 1: 1,8; 1: 1.5. All other types of displacement and damage are observed in 8-10 times less often than fractures. [7,8]

The average number of traumatic injuries per 1,000 people is 4.7. The frequency of injuries during training, competitions, and training vary. During the

competition, the intensity indicator is 8.3, at the training - 2.1, and at the training-competitive meetings -2.0.

According to the analysis of literary sources and own researches, the most common among injuries is "bruising" - from 35-45%, followed by the number of injuries - "stretching, breaking and rupture" from 25-35% of cases. Stretching, tearing and breaking of muscles is 8-15%. Damage and bruises - 5-12%. Cracks and fractures of bones - from 3 to 11%, displacement from 1 to 4% [4-6, 8]

Often the localization of injuries in athletes-fighters is a trauma of the extremities (more than 80%), especially the joints (mainly knees and ankle joint). [6]

The number of injuries in sports should be minimal. Not only doctors but also teachers and trainers should take an active part in the prevention of sports injuries. Specialists should know the features wellas well as the main causes and conditions that contribute to the occurrence of various injuries in the sport. This knowledge is also necessary for an athlete.

Over the past 7 years, we have been conducting rehabilitation activities with athletes of various sports using the "Lyapko" clamping devices in the post-traumatic period. In most cases, attention was paid to athletes-fighters (boxing, karate, kyokushinkai karate), aikido and other types of wrestling) With the fact that the research group belongs to these types, 96 sportsmen of different types of martial arts who were used during rehabilitation by Lyapko applicants were interviewed.

Table 2.

Estimated timing for the beginning of physical activity and training after some injuries and surgical interventions and time for the beginning of training of athletes after application of Lyapko applicators (number of days),

Post-trauma and surgical intervention.	Permission after complete recovery to			
	physical activity		Sports training	
	Existing terms	After applying the applicator Lyapko	Existing terms	After applying the applicator Lyapko
Fractures:				
clavicles	40-50	30-40	45-55	35-45
Wrist bones	75-90	60-80	90-180	75-160
Phalanxes of fingers	21-28	15-22	28-42	20-36
Ribs	21-28	16-23	28-42	20-34
Phalanxes of the fingers	14-21	10-18	21-28	16-22
contortion				
clavicles	42-56	34-50	56-100	48-90
Shoulder joint	90-120	86-105	120-180	105-160
Elbow joint	90-120	80-105	120-180	105-160
Fingers of the brush	14-21	12-18	21-28	16-22
The knee	15-45	12-40	45-60	38-52
rupture				
4-head muscle	90-120	88-105	120-300	110-280
2-head muscle of the thigh	45-60	38-50	60-75	50-65

Galvanic-electric action

The human body is a complex system, filled with biosoles, which, in turn, consist of electrolytes and contain both positive (cations) and negative (anions) ions. The intensity of galvanic-electric influence is regulated by the organism itself, depending on the level of saturation by tissue electrolyte (layers of the skin, subcutaneous tissue, lower structures). Swelling is painful, inflamed area of skin, a lot of fluid, and there is an intense reaction in contact with the applicator, with a lot of

energy. In contact with the skin on the surface of the needle applicator, there are many physical and chemical changes that are characteristic of changes under the action of direct current. As a result, oxidizing films are formed on needles, and the electroplating effect appears. At the same time, the ends of the needle are the points of maximum galvanic currents (since there is a potential difference between the base metal needles and the peripheral metal coating that are locked together with each other (I1).In addition, between the needles of different metals in the skin are intergranular currents I2)), whose magnitude depends on the conductivity of the skin, and saturation with its electrolytes (Fig. 2). [10]

Electro-galvanic microcurrents:

• Causes the diffusion of trace elements from which needles are made (Cu, Fe, Zn, Ni, Ag), promote their placement in tissues, these trace elements play an important role in ensuring the normal functioning of various organs and systems;

•Activated respiratory enzymes of cells;

• Normalize pH of tissue liquids;

• Activates metabolic processes in tissues;

• Stimulate regenerative (regenerative) processes.

Stimulation of humoral and tissue immunity levels increases the level of immune protection and adaptation to disease-causing effects. electrophoresis (diffusion) of these metals into the internal environment of the organism.

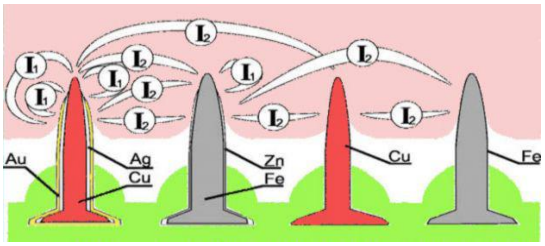


Fig. 2. Schematic representation of electrical ion currents occurring at the tips of needles and between needles of various metals, accompanied by electrophoresis (diffusion) of these metals in the internal environment of the organism

In the case of injuries, in particular fractures, the applicator is imposed on the spine department, which corresponds to the segmental innervation of the damaged limb, for 15-30 minutes, and on the extremity above or below the fracture.

Applicators should be placed under the head, neck, shoulder girdle, upper and middle sections of the chest, and also with the effect on the brush and foot, in case of headaches, neck pain, shoulder girdle, arms, areas of the heart, upper and middle breast.

Schemes of influence by applicators and rollers at various injuries

The main zone zones are located along the spine.

Auxiliary and additional zones - zones that increase the effect of the influence of the main zone.

Application areas:

basic 7, 8; extra 18;

Subsidiary 26, 28, 30, (22, 27.29).

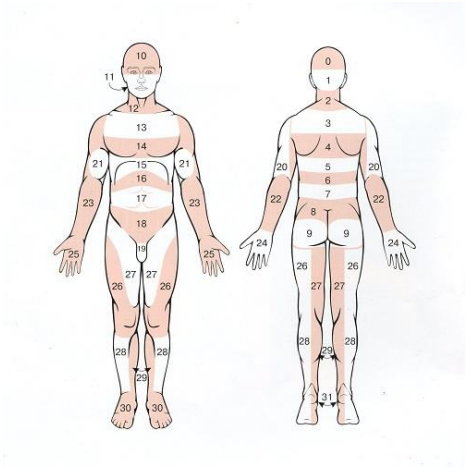


Fig. 3 Schemes of influence by applicators and rollers

General recommendations.

At fractures, the applicator affects the fracture side on all free surfaces above and below the fracture site (excluding gypsum bandage). The duration of action on the side of the fracture is 2 times longer than on the healthy limb.

Additional recommendations.

For treatment of injuries, fractures the applicator is placed on the spine, corresponding to the segmental innervation of the damaged limb for 15-30 minutes, and then above or below the fracture for 15-30 minutes. If in the area of injury there is no damage to the skin, then it affects 15-20 minutes by the applicator or 10-15

minutes roller. To enhance the effect by applicator or roller periodically, 3-5 minutes, irritating on the healthy limb zone, symmetrical fracture site on the diseased limb.

Applicator Lyapko relieves pain in the spine, joints and muscles and headache;

• In sports, it is recommended to use Lyapko applicators after significant physical activity, which allows faster recovery;

Provides accelerated recovery (after injuries, muscle tension, fractures, surgical operations) due to a significant acceleration of biochemical, oxidative-reduction processes in the body; Increases strength and high endurance of athletes;

• Increases the ability of the body.

The duration of the application session depends on the type of effect you choose:

- toning - from 7 to 10 minutes;

- calming effect, help with chronic diseases - 20 minutes;

- removal of acute pain - from 10 to 30 minutes;

- the increase of work capacity, the endurance of the organism - from 8 to 12 minutes;

- restoration after training, competitions from 15 to 30 minutes;

- recovery after injuries, operations, etc. - rolling tape applicators 2-3 times a day for 2-10 minutes. above or below the damage zone. if there is access and the integrity of the skin is preserved, the damage zone itself is treated.

Injuries and fractures of the upper limbs (Fig. 3).

Application zones:

basic 2, 3

additional 4, 13

auxiliary 20,22, 24, (28, 30).

General recommendations.

Fracture, fracture side affect all hands-free surfaces above and below the fracture (cast). The impact can be done both by the applicator and the roller. Duration of the fracture on the side 2 times longer than the healthy hand.

For example, exposure with static applicators for 15-20 minutes on the neck-collar area and on the sick arm, 5-7 minutes per healthy hand.

Injuries and fractures of the lower extremities (Fig. 3).

Application zones:

basic 7, 8; additional 18;

Subsidiary 26, 28, 30, (22, 27, 29).

General recommendations.

When fractures affect the side of the fracture on all free surfaces above and below the fracture site (excluding gypsum bandage). Treatment can be done both as an applicator and roller. The duration of action on the side of the fracture is 2 times longer than on the healthy leg. For example, we influence for 15-20 minutes by static applicators on the lumbosacral area and on the diseased leg, and symmetrically - on a healthy leg for 5-7 minutes. The same technique for injuries.

Additional recommendations.

For treatment of injuries, fractures the applicator is placed on the spine, corresponding to the segmental innervation of the damaged limb for 15-30 minutes, and then above or below the fracture for 15-30 minutes.

If in the area of injury there is no damage to the skin, then it affects 15-20 minutes by the applicator or 10-15 minutes roller. To enhance the effect by applicator or roller periodically, 3-5 minutes, irritating on the healthy limb zone, symmetrical fracture site on the diseased limb. [10]

Conclusions

Analysis of the results of our work suggests that the use of "clamping devices" of Lyapko " significantly reduces the post-traumatic period of the athlete. The time of healing of joint injuries, muscle tension, edema, and nails is reduced by an average of 25-30%.

The unique and versatile compensator of hypodynamia is the applicator Lyapko in various modifications: plates, rollers, tapes. The needles of the applicator consist of the metals necessary for the body: zinc, copper, iron, nickel, and silver. High therapeutic efficacy is achieved due to reflex-mechanical effects, as well as due

to galvanic currents occurring in the skin, and between the needles between the needles and as a result of which increased selective microelectrophoresis of metals into the internal environment of the organism.

Applicant mobilizes internal resources, stimulates the development of natural medicines within the body in the necessary physiological doses, compensates for the lack of motor activity. reduces the time of complete recovery after craniocerebral traumas, nails, fractures, surgical intervention;

Moderate irritation of sensitive endings, concentrated in certain points of skin, muscles and other tissues, and through their mediation - nerve trunks, restores nervous regulation in the body, normalizes strength, mobility and balance of processes of excitation and inhibition.

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