



Physical Therapy Modalities and Alternative Methods in Treatment of Soft Tissue Lesions



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Abstract

Purpose: To present the role of physical therapy and some alternative medicine methods to improve recovery after soft tissue muscles skeletal trauma in athletes and physical active people.

Introduction: Soft tissue injuries are common in physical active people, vary from minor to major complex trauma. Soft tissue injuries include sprains, strains and bruising. Any soft-tissue injury can lead to a tenderness, swelling, haematoma, scarring, fibrosis and loss of function. In the next few days after injury, we can greatly improve recovery time by taking medicaments that decrease inflammation and speed healing. The case of treatment in PH&Reha is soft tissue injuries of muscles skeletal system. There are onlower limb(ankle, knee, hip), the other on the shoulder (dislocations, acromioclavicular joint injuries, rotator cuff injuries), elbow and wrist. The aims of physical therapy are to relieve pain, control inflammation, hasten resolution of a haematoma, and accelerate repair, to restore function and recovery muscle power.

Discussion: There are a variety of choices available which can provide specific and individualized results. Integration of conservative treatment and surgery with physical therapy, can decrease a time of rest and inactivity. The physical therapy has used follow physical therapy modalities: Light therapy, electro therapy, sonotherapy, hydro therapy, cold and warm applications, with proved effect. However, once the injury is stabilized, patient should take an alternative treatments for soft tissue injuries like acupuncture, massage, functional taping, and herbal therapy from medicaments to greases.

Conclusion: Modern Physical therapy can improve fast recovery and functional impairment, on science base, with physical therapy modalities and alternative medicine methods. Evaluation of effect of treatment can be with ultrasonography, and clinical test and scores.

Keywords: Soft tissue injuries; Physical therapy

Introduction

The conservative treatment of soft tissue injuries includes methods of physical therapy as the exercises according to localization and the type injury. It also includes some physical modalities, which improve the conventional methods and together with the medicament therapy they give a faster recovery of the patient [1]. A basic evaluation is made on the affected region, the ability to function on a given sport and the detection of deficits which appear. After we confirm our diagnosis we can treat the patient with some methods of physical therapy like physical therapy modalities, exercises and alternative methods, as well as passive methods like PNF and PIR [2]. Functional taping is one of useable method in early acute stage. Exercises has own effect and are by stage of condition: acute, post-acute and chronic. The well managed rehabilitation will lead to a quick recovery, achieving stability and return of the optimal sports function.

If the type of injury requires a surgical intervention, then before and after the surgical treatment a rehabilitation is needed and done.

This rehabilitation is used in order to maintain the current function, to prevent contractures and swelling and to reduce pain. On this rehabilitation we also add a subacute and a chronic phase of rehabilitation, which aim towards stimulation and acceleration of the regenerative process of the tissues, full spectrum of movement and maximal strength and function of the treated region [3].

In the subacute and the chronic phase of rehabilitation a team of experts is involved who are also doing an analysis and evaluation of the biomechanical and neurophysiological functions of the athlete. With a total care and evaluation for prevention of re-injury and achievement of full function of motions in total [4].

Some physical modalities are yet to be distinguished between alternative and conventional medicine, which include the phototherapy, cryotherapy, application of taping and other methods which reduce pain, swelling and stimulate the tissues [5].

Many studies refer that often the athletes are coming back on the field without fully rehabilitated injuries which is affecting

re occurring of the same injury, as a result of a locomotive deficit. Muscle-skeletal sonography is fast and cheap method for diagnosing and evaluating the condition of soft tissue lesions and it is a method of choice for every physician in physical therapy [6,7].

Discussion

The treatment of soft tissue injuries with physical therapy requires from the physician or the PT to know all diagnostic measures for the abnormal function of the injured region [8]. During the evaluation a comparison is always needed between the injured and healthy region in terms of flexibility, stability, muscle contraction and asymmetry.

Methods of healing which are used as physical modalities are: electrotherapy [9,10] heat therapy, photo therapy, sound therapy [11] and hydro gymnastics [12] which have proven effects in reduction of pain and swelling and healing of the tissue. From the alternative methods the most used is the tipping, acupuncture and herbal medicines. The exercises need to be adapted to the type of injury and the affected region.

Light therapy-treatment with low level laser therapy, has a positive effect on decrease of pain and biostimulation of soft tissue repair. Polarized light is applied after contusion, hematomas, swelling and inflammation [13]. Treatment with ICE- has a positive effect on decrease of local pain, and swelling, and it is a method of choice in acute condition, emergency after trauma *vis a vi* hot applications [14]. Cryo-compresses are useable in eminent sport clubs for increase muscles performances for sport men, without doping substances [15]. Functional typing-is easy applicable method, who decrease swelling, can immobilization area of injury and in same time decrease swelling with increase of mobility [16]. Electrical therapy – has analgesic and trophic effect with stimulation of soft tissue healing. Exercises in close and open kinetics are inseparable in modern therapy of conventional medicine, created according to the type of injury, which can be acute subacute and chronic [17]. Sports massage is one of the first types of massage which is accepted by the conventional medicine. Its positive effects are a gift for every athlete and can be important in the success in the competition [18]. Herbal medicines can reduce pain without side effects and can pass doping control [19]. Hydrotherapy has an important place in quick recovery after the injury or for myorelaxing use [20]. Acupuncture is effective therapy in treatment of pain in chronic stage [21-23].

The pain is one of the reasons which can reduce the capability of the athlete. The treatment depends from the etiology of the pain and can be often treated in a conservative way. Not always the pain requires an invasive method for treatment and if they repeat it is not rational to always be treated surgically.

Conclusion

Physical therapy like a method of treatment for soft tissue injuries special by athletes is important part of medical care, in first place because use physical therapy modalities who are not on doping control list and second it SKRATUVA short the time of recovery after trauma, with optimizing the time of inactivity and

back in full condition. In follow up of condition muscles sonography is method of choice for every physicians.

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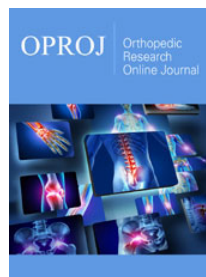
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