International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 04, 2020
ISSN: 1475-7192

Design a rehabilitation program to treat some soft tissue injuries in the shoulder joint of basketball people

[1]Sahar Mohammed Salman

Abstract :

Objective: The study aimed to identify the differences between the measurements (tribal dimension) for the rehabilitation and treatment of some soft tissue injuries in the shoulder joint in the tests under study, participants: basketball players in the specialized school (Iraq) numbered (8) players injured in the shoulder joint, The researcher used the experimental method using the experimental design of one group and measurement (tribal-dimensional) to suit the nature and purpose of the research, the researcher has conducted a number of tests and selected measurements that are suitable for the age and sex of the research sample members being young and that are consistent with The requirements of the research, and a rehabilitation program was designed according to physical exercises for the rehabilitation of shoulder joint injuries, which are exercises without weight, exercises using body weight, medical balls and exercises using iron bar, and used the law (T-TEST) for non-independent samples to know the difference between tribal and dimensional testing, it was reached that the rehabilitation method has a positive effect in the treatment of some soft tissue injuries (muscles, wallet ligaments) in the shoulder joint in light of the results in the tests (tribal and dimension).

Keywords: *Rehabilitation Program, Soft Tissues, Shoulder Joint, Basketball*

I. Introduction:

Rehabilitation and physiotherapy in sports injuries is constantly expanding and is associated with injuries that occur to the athlete during physical activity, as some sports injuries occur as a result of the high and continuous effort on the organs and organs of the athlete's body and as a result of the repetition of certain movements in many sports activities and events that require the performance of movements with moderate or high frequency and frequency during training, as well as that poor planning of training programs or training units in terms of increasing the number and non-proportionality of components of the training load In line with the player's ability to achieve, in addition to the incompetence of the pitches and tools used during training and competitions, scientifically that any part of the body is vulnerable to injury during physical activity, these injuries include the musculoskeletal system, muscles, various tissues such as cartilage and ligaments, brain and spinal cord injuries, in addition to wounds and bruises. (Salerno, 2009).

[1] *General Directorate of Education in Baghdad / Al-Karkh*

Basketball is one of the highest rates of injury among its players among different sports, and basketball requires high physical effort, a sport that involves movements often made at high speeds in many directions, and any decrease in the player's ability to control the attack during jogging, cutting, jumping, or stopping can lead to excessive stress on the musculoskeletal system, and this tension can be painful or repetitive in nature, with possible consequences that lead to injury (YazanHaddad, 2017) , performing exaggerated movements such as repeat movements in which the hand is above the level of the head may lead to injuries including shoulder joint injuries,This joint is one of the most complex and most mobile and most susceptible to injury in athletes, especially young people, which is one of the important parts of the body it connects the upper limbs of the body and produces the moderation of the shoulder through the regular muscle work of different muscles (YoussefTawfiqHashash , 2005) . and that the shoulder joint is a synovial joint of the spherical type so movements are carried in it freely in all sides (Mahmoud BadrAqel, 1989), and is between the head of the humerus and the right cavity of the shoulder plate bone (Qais Ibrahim al-Douri, 1999), and the joint is surrounded from the outside by a detailed purse, which is a strong bag that surrounds the entire joint and extends from the edge of the right cavity to the anatomical neck. For the humerus (fariqkamuna, 2002) in addition to soft tissues which means all that surrounds the joint except the bones and is considered a tissue of fibrous bonding and abounds white fiber and this tissue is found in the ligaments of the joints, including the shoulder joint (Ali Bashir al-Fanandi , 1997). rehabilitation and therapeutic exercises are a science that falls under the umbrella of sports medicine, which has become the human being interested in researching many of its branches and departments to find the best and make fun of it in the service of humanity, the rehabilitation programs are many and varied in the field of sports medicine for the rehabilitation and treatment of athletes with round quantum injuries, but there is a difference of views in terms of the period of rehabilitation program and methods of daily rehabilitation, and the therapeutic approach followed, in addition to all these rehabilitation programs need many scientific foundations. Which has something to do with the design of the rehabilitation program (samiea Khalil, 1990).

Studies that dealt with rehabilitation programs are of great importance, especially those that addressed repeated injuries in the shoulder joint and methods of treatment, as many studies have shown that the rehabilitation program has a positive effect in the treatment of determining the movement of the elbow joint resulting from some acute injuries through the development of the circumference of the humerus upper and lower thirds and in the vicinity of the humerus in cases of tension and relaxation of the affected organ As there has been a development in the muscle strength of the muscles on the affected elbow joint (ImadNazimJassim, 1999), the study (MagdiKok) proved positive results in increasing the strength of muscle groups working on the shoulder joint as well as the motor range through a program to rehabilitate the muscles working on the shoulder joint after surgical intervention to repair the frequent dislocation (MagdiKok, 1996), and analyzed the injuries of the joint as it was found that most of the injuries caused to the shoulder joint are shoulder dislocation and inflammation (ZouawiAli) shoulder injury and inflammation (ZouawiAli , 2015)

The multiplicity of previous studies shows the importance of these topics, including what touched individually and specifically of injuries, as well as the differences of events studied, including what researched the importance of rehabilitation programs, adding to their valuable results what we can prepare a distinguished scientific product open the field for the researcher in the current study to look for the role that can be played by

rehabilitation programs not alone as the study of dislocation or infections as in those previous studies, but also surrounded by them together as the study of some soft tissues (muscle, wallet, Ligaments) in the shoulder joint and in the basketball game and this is what differed in our current study and characterized by it, as the shoulder injuries of various types occur frequently in young people as a result of stress in training, but the methods of treatment (rehabilitation) differed their methods and methods, including the therapeutic exercises developed by specialists and researchers, which also differed in terms of time and severity and frequency and the quality of tests that measure the extent of the development of the injury and according to the type of injuries occurring and the general health condition of the injured person in terms of relieving pain and activity and delayed the appearance of fatigue The motor range, to verify this, was to identify the difference between measurements (distant tribal) for the rehabilitation and treatment of some soft tissue injuries in the shoulder joint in the tests under study.

II. Procedures and measurements:

Participants:

The study was conducted on the 8 basketball players in the specialized school (Iraq) with shoulder joint injuries and the injuries were diagnosed by the specialist doctor.[*]

Procedures:

The researcher used the experimental method using the experimental design of one group and measurement (tribal-dimension) to suit the nature and purpose of the research, the researcher conducted a number of tests and selected measurements that suit the age and sex of the research sample members as they are young and which is in line with the requirements of the research, and after the researcher was informed of the scientific sources (Bastweissi Ahmed, 1999) (Mahmoud BadrAqel, 1989) (Abu Alaa Ahmed, Mohammed HassaneinSobhi,1997) (Mohamed SobhiHassanein, 1987), found that tests of strength, strength and motor range are the basis for assessing the condition of the injured person.

The rehabilitation method included the performance of physical exercises for the rehabilitation of shoulder joint injuries, which are exercises without weight, exercises using body weight, medical balls and exercises using the iron bar, the purpose of these exercises is to strengthen the muscles of the shoulder joint and extend its strength, as well as to increase the range of movement and try to restore the range of movement to the normal extent and in the directions of movement all, the exercises were distributed in the rehabilitation approach over six weeks where the method of progression was used in the severity of physical load and progress in the difficulty of performing exercises She started using weightless exercises followed by body weight exercises and then weight exercises.

During the first week, the patient was subjected to treatment using physiotherapy devices (short radiation, ultrasound, infrared) in the physiotherapy department and under the supervision of specialized medical staff and the supervision of the competent doctor, the goal of the use of physiotherapy devices was:

[*]Dr. Muzaffar Abdullah Shafiq: Specialist Doctor - Specialized Center for Sports Medicine - Baghdad.

- Reducing the pain in the area as a result of injury.
- Reducing the incidence of inflamed ness and tumor swellin the region.
- Preparing the injured person to use physical exercises without weights and characterized by ease in performing as well in terms of accepting them by the injured.

The qualifying unit consisted in the second week of eleven graduated exercises in difficulty from easy to harder and three stations and thus the total number of exercises carried out (33) exercises (3 stations x 11 repetitions) and the rest time between repetitions (1-2) minutes and between stations (3-4 minutes) thus the total rest time between repetitions per station (10 x 2 minutes = 20 minutes) and thus the rest time between the three stations (20×3 = 60 minutes) while the total rest time in the rehabilitation unit (20 x 3 = 60 A minute).

The exercise performance time was limited to a time of (10-30 seconds) thus reaching the total time of the exercise performance (10 x 11/30 x 11) minutes per group (10 seconds x 33 repeats / 30 x 33) Any (5.5- 22.5 minutes) (5.5 x 3/ x 6.5 x 3) for the whole station, so the total qualifying unit time in the first week (16.5-45 minutes) was 16.5-495 minutes.

III. Results:

After the researcher emptied the results of the data for the tribal and dimensional tests of the research group and processed them statistically, the results were as described in table (1):

Table (1)

Shows the computational and standard deviation, calculated (t) values and sig values in the tribal and dimensional tests

Search variables		Mean	Std. Deviation	t	Sig. (2-tailed)
Bend forward	The pretest	89.38	33.436	-7.085-	0.000
	Post test	165.88	4.941		
Tide back	The pretest	19.00	1.309	-29.820-	0.000
	Post test	51.25	2.252		
Banishment	The pretest	105.88	5.083	-39.935-	0.000
	Post test	171.13	3.399		
Rounding	The pretest	15.63	1.061	-41.591-	0.000
	Post test	61.75	2.605		
Rotate in	The pretest	104.38	4.502	-27.765-	0.000

	Post test	166.63	2.925		
Rotate out	The pretest	129.13	2.100	-33.435-	0.000
	Post test	174.00	2.828		
Maximum strength	The pretest	3.50	1.512	-8.367-	0.000
	Post test	8.50	.756		
Power	The pretest	18.25	1.282	-21.088-	0.000
	Post test	31.13	1.458		

From table (1) showing the calculation scoring circles of differences, standard deviation, error level (sig) and indication of differences between tribal and dimensional tests, the results show that the value of the error level (sig is (0.000) is smaller than the value (0.05), indicating that there are moral differences between the tribal and dimensional tests and in favor of the dimensional test of the experimental group.

IV. Discussion:

Through the results achieved show the moral differences between the tribal and dimensional test, the researcher believes that the development achieved came as a result of the effectiveness of the vocabulary of the rehabilitation method, which was prepared according to the correct scientific bases and based on the efficiency of the exercises used in the rehabilitation method prepared for her from strengthening the muscle groups surrounding the affected joint, the researcher adds that the physical therapeutic exercises led to the activation of muscles, tendons and ligaments after there was a lack of movement and use as the program contained different types of methods of developing the motor range before exercises. The constant and moving flexibility and the work of these exercises slowly and broader in the range of mobility helped to get these results as getting enough flexibility for the muscles, tendons, ligaments of a particular joint or a group of joints in a certain movement or effectiveness depends on the amount and intensity of the exercises that lead in a wide range of movement as well as on the degree of flexibility gained previous for the individual (Wadih Yassin Al-Tikriti, YasinTaha Al-Hajjar , 1986). the use of the method of diversification and change in physical therapeutic exercises had a role in preventing the recurrence of the occurrence of injury in addition to the dimensions of boredom and other psychological factors, and each increase in the carrying of training of intensity and size is offset by an increase in the practical capacity of the organic organs to ensure their growth and development (Abd Ali Nassif, 1988). and the reason for the moral change in the motor range and passing through most variables to reduce the optimal motor range to the effectiveness of therapeutic exercises in the area of motor expansion in the area. Because therapeutic exercises increase the flexibility and activity of the body and increase the muscle compatibility of the nervous , (Ahmed Al-SabahAwad, 1973) (Fouad Al-Samarrai, Hashim Al-Samarrai, 1988), as well as the comfort given within the prepared approach positively affected the injuries, especially in the first weeks, which

led to the rest of the muscles and ligaments in the affected area as rest is used to reduce the severity of the injury and create a suitable environment for healing (Booher Hames , Cary A, 1981) (Juma Mohammed Awad, 1988).

(Stein Haus, Arthar H,1991) and (Wilkec, D. Mucle,1998) with regard to maximum strength that there is a need to increase the tension and the amount of work done for the development of maximum forces with emphasis on the importance of the size of the resistance used and attention to its amount and point of effect and the amount of longitudinal tension of the muscle as well as the point of contact and the muscle tendon and its relationship to the joint. but the development in the length of strength due to the role of therapeutic physical exercises and the training contained in the curriculum of the training of the development of the strength range as these exercises led to the activation of the blood circulation, which led to increase Blood flow to the area, thereby increasing muscle nutrition and growth, as well as increased nutrition of ligaments and bones, as well as the fact that exercises increase neuromuscular compatibility (Fadhil Sultan Sherida, 1990).

V. Conclusions:

The rehabilitation method has a positive effect in the treatment of some soft tissue injuries (muscles, wallet, ligaments) in the shoulder joint in light of the results in the tests (tribal and dimensional), in the first stage led to the application of the treatment of rest and infrared to improve the motor range and reduce the degree of pain as the method designed has contributed directly to reducing the rehabilitation time for the injured and ensuring the speed of their return to normal life , In light of the results between the two tests (tribal and dimension), the researcher recommends the use of the prescribed rehabilitation curriculum in the nearest period after injury, with emphasis on the use of fixed and moving exercises within the vocabulary of the rehabilitation curriculum based on the anatomical and mechanical bases when preparing the curriculum.

References:

1. Abdul Ali Nassif, Qassim Hassan Hussein (1999), Principles of Sports Training Science, Baghdad, Higher Education Press, p. 122.
2. Abu Alaa Ahmed Abdel Fattah, Mohammed SobhiHassanein (1997), Physiology and Morphogia Sports and Measurement Methods for Calendar, I1, Arab Thought House Publishing, Helwan University, Cairo, p. 187.
3. Ahmed Al-Sabah Awad (2000), Sports Health and Physiotherapy, Beirut, Sidon, Modern Library, p. 199-122.
4. Ali Bashir Al-Fandi, Hilal Abdul RazzaqShaukat (2008), Physiology, Fitness, I1, National Book House, Benghazi, p. 342.
5. Bastweissi Ahmed (1999), Sports Training, Arab Thought House, Cairo, p. 231.
6. Booher Hames , Cary A : Athletic IniuryAssessmsnt , second edition, by times mirror mosby college puplishing USA, 1981 , p.122 .
7. Fadhil Sultan Sherida (2000), member jobs and sports training, Saudi Arabia, Saudi Federation of Sports Students, I1, Riyadh, Crescent Press, p. 155.

8. fariqkamuna (2002), Encyclopedia of Sports Injuries and How to Deal With Them, I1, International Scientific Publishing House, Amman, p. 260.
9. Fouad Al-Samarrai, Hashim Al-Samarrai (1998), Sports Injuries and Physiotherapy, I1, Jordan, Amman, Middle East Printing Company, p. 220-222.
10. ImadNazimJassim (2011), the impact of a proposed rehabilitation program in the treatment of the movement of the joint attachment resulting from some severe injuries, master's thesis, p. 24.
11. Juma Mohammed Awad (2008), small and repeated injuries in volleyball players, master's thesis, University of Baghdad, Faculty of Sports Education, p. 45.
12. MagdiKok (2009), a proposed program for the rehabilitation of muscleworking on the shoulder joint after repeated dislocation repair, Doctoral Thesis, Faculty of Physical Education, Egypt, University of Tanta, p. 27.
13. Mahmoud BadrAqel (1999), Basics in Human Anatomy, Amman, Dar al-Fida publishing and distribution, p. 278.
14. Mohamed SobhiHassanein (1999), Calendar and Measurement of Physical Education, I2, Arab Thought House Publishing, Helwan University, p. 286.
15. Qais Ibrahim Al-Douri (2006), Anatomy, I12, Mosul University, Higher Education Presses, p. 72.
16. Salerano, R. (2009). Sports injuries and their effects on health. New York, USA: Nova science publishers , p32.
17. Samia Khalil Mohammed (2006), Therapeutic Sports, Baghdad, University Press, 1990, p. 13.
18. Stein Haus , Arthar H.(1991) , strength from morturgo to mullo – Ahalfsentusy of research J. Assoc physical and mental Rehab , p. 4-8 .
19. Wadih Yassin Al-Tikriti, YasinTaha al-Hajjar (2010), Physical Preparation for Women, Mosul University, Dar al-Books for Printing and Publishing, p. 118.
20. Wilkec , D. Mucle . Newyorkst.Marting press , 1998 , p. 85-86 .
21. Yazan Haddad (2017), Common Injuries in Basketball Players and Their Relationship to The Play Center, Al-Najah University Journal for Humanities Research, Volume 13, p. 3
22. Youssef TawfiqHashash (2005), Anatomy, I1, Arab Society Library for Publishing and Distribution, Amman, p. 57.
23. Zouawi Ali (2015), shoulder joint injuries and their impact on performance in weightlifting, Master's thesis, Institute of Physical And Sports Education, Algeria, p. 123