

ملخص البحث

فى رياضة كرة اليد ونتيجة للتدريب والاحتكاك ، كثرت ألام الانسجة الليفية والعضلية المحيطة بالكتف مما تسبب فى تغيير جرعات التدريب واختلاف فى تشكيل الفريق .

وسائل العلاج المستخدمة هى الأدوية المسكنة والكمادات الساخنة مع الاشعة فوق الصوتية ثم استخدام التاين المعروف تأثيره من مدة طويلة فى إدخال مادة علاجية إلى منطقة محددة ولكن لم يستخدم فى علاج الرياضيين إلا حديثا جدا .

ميزة التاين عن الحقن الموضعى هى خطورة الحقن احتمال حدوث مشاكل بعد الحقن أو التهابات .

كذلك سهولة استخدام التاين فى العلاج ورخصة تكاليفه عامة وقد وجد تاين المجموعات الثلاثة وبالمقارنة أن نسبة التحسن فى العلاج بالتاين تفوق المجموعتين الأولى والثانية .

اجرى البحث على ثلاثون لاعب كرة يد فى الموسم ٨٦ - ١٩٨٧ مختارين عشوائيا من ١٢٣ لاعب مصاب متوسط السن ١٧ - ٢٨ عام استخدم جهاز الجانيوميتر لتحديد العنقية والكتف اشعاعيا للتأكد من سلامة العظام وعدم وجود تغير بها .

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SUMMARY

In this research , we have compared three methods of treatment for shoulder, girdle, myo-fossial Syndrom in hand baller (1 st class) to identify the most successful one .

The three methods used :

- 1) Medicaments which lessen the pains and relax the muscles .
- 2) Hot bags and the ultra sonic which are distinguished by their direct effect .
- 3) Iono-phoresis which is used to introduce medicaments as a result of ionization .

The results have proved that it is the most effectual method of treatment besides its easiness and cheapness .

RESULTS

They could be elicited as followed :

- The least improvement was in the first group .
- The injured who were treated by iono-phoresis had a better chance to improve .
- In the tenth day , 3 players from the first group were still suffering the pain .
- In the tenth day , 2 players from the second group were still suffering as well .
- In the nineth day , the treatment was stopped in the third group as a result of complet improvement .

DISCUSSION

From the previous three methods and the results, it was elicited that the best method is that of iono - phoresis because of its high percentage of recovery . It is the most secure method in comparison with the first method (medicaments) which requires an accurate observation of the patient for fear of their side-effects. It is also much better than the second method bwcause of the quick recovery and because the completion of treatment is achieved in a shorter period .

However , in the future we should make more researches on iono-phoresis as a quick treatment for most of the injuries . Most probly it will rid us of the local injection that most sportsmen refuse it for its pains and doctors are against it because it may cause inflamations .

we should also study different medicaments and the possibility of their usage to treat the players, injuries trough iono- phoresiis , This method will not solve the problems of the players' injuries but also it will help in the advancement of sport .

TABLE
Average Shoulder abduction for each treatment procedure
time period (days)

Medication	Hydrocollater / ultra sonic	Iontopharesis
0 35 (7)	33 (8)	35 (8)
1 37 (7)	38 (8)	45 (8)
2 40 (7)	45 (8)	50 (8)
3 40 (7)	50 (8)	70 (5)
4 45 (7)	53 (7)	58 (3)
5 50 (6)	53 (7)	88 (3)
6 60 (6)	64 (5)	96 (2)
7 65 (6)	70 (5)	94 (1)
8 65 (5)	91 (3)	120 (1)
9 68 (3)	95 (2)	- (0)
10 70 (3)	107 (2)	- (0)

* Average based on number of subjects given in parentheses .

commencing the treatment , the angle of the shoulder movement (that the player could do it without pain) is recorded by the Genometer . The recording is repeated everted everyday for the 3 groups but as for the 2nd and 3 rd group it should be before the sessions of treatment .

If the pain disappears and the movement of the injured shoulder is improved , the treatment should be stopped and complete recvery is recrded at once .

relief the pain of the injury .

3) Iono-phoresis : the aim of the iono phoresis as a medical treatment is the introduction of medicaments through the skin of the injured to the position of the injury . This could be achieved by ionization in the electro-magnetic field using a negative pole and a positive pole. The medicament required is introduced through a modified electric current . This means has been used since more than 70 years . It has been used for the first time in 1908 by as an experiment to prove the possibility of introducing the ions in ionization through the skin. However , it has not proved at those times much success for many reasons; for instance , burns and allergy, and the primitivity of the instruments .

Fortunately, the progress of the Science of Electricity , The multiplicity and improvement of the instruments , and the development of the Science of Medicaments have enabled us to solve the problems that may prevent iono-phoresis to be used as a medical of treatment .

It should be mentioned also that this method has been used in treating normal patients. However, in this research we will use it in treating the injuries of sportsmen because it is a secure and easy method . It is not dangerous as local injection is painful and may cause internal inflammations . Moreover, it needs specializations .

Steps of the research :

30 players were chosen at random and divided into three groups :

- The first group were treated by medicaments .
- The second group were treated by hot bags and the ultra sonic .
- The third group were treated by iono-phoresis .

The elements used in the 3rd group are : One cubic cm of 4% dexamethasone sodium phosphate and 2 cubic cm of 4% Lidocaine HCl injected by syringe into the positive electrode pole. The intensity of the current starts from 1 ml ampere and increases 1 ml ampere every minute till it reaches 5 ml ampere and continues for 15 minutes . Everyday and before.

Second : Hot bags and the electric treatment especially the ultra-sonic .

Third : iono-phoresis which is the insertion of the treatment material directly to the location of the injury by using the electric current and the ionization of the similar ions .

The Sample :

In the sport season of Sept. 1986 / Sept. 123 players had been examined . The pains had been diagnosed in the musculo-facial tissues surrounding the shoulder joint (average age 17 - 28) 3. They have all been examined clinically with the concentration on the degree of pain and the outer angle for the movement of lifting the shoulder, that is , the angle which lies between the humerus bone and the trunk. It has measured in comparison with the normal movement that does not cause pain .

The cervical and thoracic vertebrae have been also examined by the x rays from the anterior , posterior and lateral sides in order to leave out any changes in the bones that consist them . In addition, the injured and the uninjured shoulder have been photographed in different positions . Both have been compared to each other . In the 123 players there were no changes in the bones according to the later examination . They have passed through neuro-logical examination and there were no changes as well .

Methods of treatment :

- 1) Medicaments : (phenylbuta tab.) has been used-being the common medicine used by doctors of the Center of Sport Medicine . The player had a dose of 400 mg per day, that is , a pill after each meal .
- 2) Hot bags : they have been laid over the most painful parts of the shoulder for 20 minutes. This has been followed by a session of the ultra sonic used in the continuous mode at the intensity of 1.25 to 1.50 watt for each cm³ for 4 minutes . The local effect of the hot bags has resulted in the increase of the velocity of blood flow in the outer tissues ; whereas the effect of the ultra sonic is a deeper heating one that increases the velocity of blood flow in deeper tissues and tranquilizes the surface . This leads to the relaxation of muscles and

A Comparative Study of Three Methods Of Treatment for Shoulder, Girdle, Myo-Fascial Syndrom in Hand Ballers, Ist class.

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Interduction

Recent advancement in sport has entailed an unprecedented intensification of training which led to injuries in the musculo-fascial tissues surrounding the most used joints . These have been clinically diagnosed as x rays examination has shown no perceptible change in comparison with the unjured tissues. There has been eneral agreement that this kind of injury was the result of the much training which produced either cramps or minor raptures in the fibrous tissues. The effort exerted often proves to be too much to be tolerted moramally , aften causing a great pain to the players, forcing them to discontinue the traning especially in the preleminary period of the season, rightly believed to be the most important .

In this research we have ussed the three common methods of treatment :

First : Muscle relaxant and analgesic .