

Acupoint application combined with acupoint massage for ankle sprain of basketball players.

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Abstract

Purpose: To investigate the clinical efficacy of acupoint application combined with acupoint massage for ankle sprain of basketball players.

Method: To further analyse practical application of the above treatment program, 1200 basketball players with ankle sprain were selected as study objects. The course of treatment was retrospectively analysed to understand clinical efficacy of acupoint application combined with acupoint massage for ankle sprain.

Results: The results showed that acupoint application combined with acupoint massage was very effective for ankle sprain, which not only shortened hospital stay, but also shortened pain duration and increased patient satisfaction rate.

Conclusion: Acupoint application combined with acupoint massage enjoys good clinical efficacy for ankle sprain of basketball players, thus worthy of clinical popularization and application.

Keywords: Basketball player, Ankle sprain, Acupoint application, Acupoint massage, Combined application effect.

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Introduction

Seen from the current situation, basketball players are prone to ankle sprain in daily training and competition process. Timely and effective treatment must be given to patients, otherwise hidden trouble will be left. Ankle sprain causes great inconvenience to patients' life. Moreover, the injury is quite painful and ankle stability is affected, so patients need hospitalization, to be recovered after continuous treatment for two weeks. Interruption of treatment will affect later recovery.

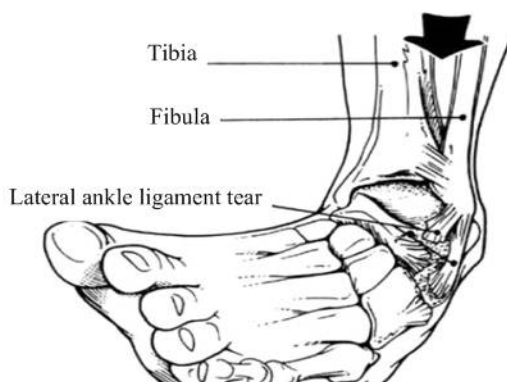


Figure 1. Lateral collateral ligament injury of ankle.

Ankle sprain is very common in medical science, and more prevalent in basketball players. The specific clinical symptoms

include: joint pain, swelling, limited mobility. What's more common is lateral collateral ligament injury (Figure 1) which greatly impacts quality of life of patients. Moreover, this disease is with repeated recurrence, apt to cause arthritis and chronic pain legacy.



Figure 2. Pressure dressing for ankle sprain.

In clinical medicine, conventional therapy is substantially dominant in treatment of the disease, such as pressure dressing, ice compress (Figure 2). Nevertheless, conventional treatment program is defective, obviously characterized by long duration of treatment plus slower recovery after treatment [1,2]. With gradual acceleration of development pace of traditional Chinese medicine, acupoint application combined with

acupoint massage has gained effective application in treatment of ankle sprain of basketball players with significant effect. Thus, its clinical popularization is recommended [3-5].

This paper discusses clinical effect of acupoint application combined with acupoint massage for ankle sprain of basketball players, with specific implementation plan as follows.

Materials and Methods

General information

In this study, 1200 cases of basketball players with ankle sprain admitted in a hospital during August 2014-November 2015 were selected as study objects of observation group. There were 750 cases of male patients, 450 cases of female patients, who were aged 16-30 y, with mean age at (22.5 ± 1.6) y; at the same time, 1200 cases of patients receiving ankle sprain treatment in the same period were selected as study objects of reference group. There were 850 cases of male patients, 350 cases of female patients, who were aged 18-35 y, with mean age at (24.8 ± 2.0) y. All patients were diagnosed with ankle sprain after clinical diagnosis and had varying degrees of sprain. There was no significant difference in general information of the two groups of patients, with $P > 0.05$, not statistically significant [6].

Treatment methods

Reference group: The patients were treated with X-ray film after admission, result of which showed no bone tissue damage. Manual reduction was performed. After it was determined that there was no dislocation, routine care was provided. For patients in emergency period, hospital took the following treatment measures: ice compress, compression, elevation of injured limb; fixation with outer retainer bracket after stabilization of ankle. Nurses should pay attention to treatment of patients for cases including blood supply, swelling and pain. If patient's sprain part is too painful, appropriate drugs can be prescribed to ease the pain.

Observation group: In addition to treatment of reference group, acupoint application combined with acupoint massage was performed for patients, with specific measures as follows: acupoint application mainly aimed for Jiexi acupoint, Kunlun acupoint, Yanglingquan acupoint, Xuanzhong acupoint (Figure 3). After 24 h, the above acupoints were massaged, 2 times/d, 2 min each time. During massage of sprain parts, it should be noted that the strength should transit from light to heavy, while patients' endurance should be taken into account.

Acupoint application was performed for patients every night, mainly paster to calm the nerves, to be pasted to patients' biped Yongquan acupoint (Figure 4) and 3 insomnia acupoints at the sole of the feet: The first insomnia acupoint: regard the heel as a circle, then insomnia acupoints locate closest to the front 5 toes; the second insomnia acupoint locates at forefront of 5 toes when people stand; the third insomnia acupoint locates at planta pedis of big toe, massage the patient. During the massage, strength should be adjusted appropriately according

to patients' endurance of pain with each massage lasting 10 min and totalling 1 time/d.

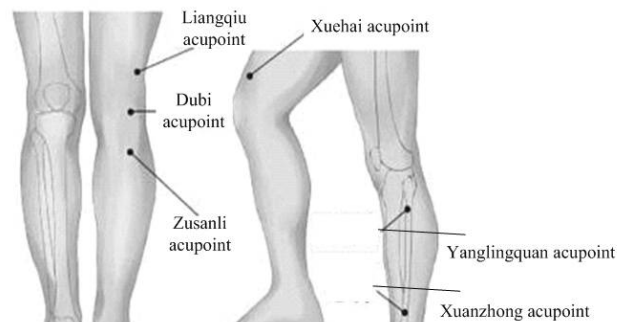


Figure 3. Acupoints near human ankle.



Figure 4. Yongquan acupoint at planta pedis.

Observational index

Duration of pain, medication use, hospital stay after treatment of the two groups of patients were observed and their nursing satisfaction was compared. The nursing satisfaction was investigated by means of questionnaire (100 points), scoring 90-100 means very satisfactory, scoring 80-89 means satisfactory, scoring under 79 means not satisfactory.

Statistical methods

In this study, new statistical software package-SPSS21.0 was selected for data analysis and processing, with count data expressed by (n, %) and tested by chi-square, while measurement data expressed by mean \pm standard deviation ($\bar{x} \pm s$) and tested by t-test. The difference was statistically significant when $P < 0.05$.

Results

According to research data, hospital stay, duration of pain, medication usage of observation group patients were superior to those of reference group, with $P < 0.05$, statistically significant. See Table 1 for specific values.

Table 1. Comparison of indicators ($\bar{x} \pm s$) of the two groups of patients after treatment.

Group	Case number	Duration of pain (h)	Ibuprofen sustained release	Hospital stay (d)
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			capsule (tablet)	
Observation Group	1200	77 ± 15	7.9 ± 1.9	10.8 ± 2.9
Reference group	1200	127 ± 18	11.8 ± 2.9	14.6 ± 6.1
T value		73.9221	38.9675	69.1356
P value		0.0000	0.0000	0.0000

As can be known from the data analysis, satisfaction of experimental group patients was significantly higher than that of reference group. Difference between the two groups was significant, with $P < 0.05$, statistically significant. See Table 2 for specific values.

Table 2. Nursing satisfaction of the two groups of patients (n, %).

Group	Case number	Very satisfied	Satisfied	Dissatisfied	Total satisfaction (%)
Experimental group	1200	900(75)	250(21)	50(4)	1150(96)
Reference group	1200	660(55)	350(29)	90(16)	1000(84)
Chi-square value					12.5404
P value					0.0004

Discussion

As far as status quo is concerned, ankle sprain is quite common in basketball movement. Timely and effective treatment must be taken for patients. Otherwise, optimal opportunity for treatment will be missed, with patients' condition deteriorated. Patients' obvious clinical manifestations include: joint pain, swelling, etc. More conventional methods of treatment in medical science are pressure dressing, cold compress, but with inferior effect in practical application and slower recovery rate of patients [7]. With gradual acceleration of development pace of traditional Chinese medicine, acupoint application combined with acupoint massage has gained effective application in treatment of ankle sprain. The above treatment method acts on acupoints by virtue of traditional Chinese medicine, to stimulate patients' acupoints, motivate meridian function, regulate qi and blood, thereby improving patients' blood circulation and enhancing their immune function. Good therapeutic effect can be harvested by acupoint application and massage. By the above-described method, drug can penetrate into affected area of patients to alleviate the symptoms. The treatment is simple, convenient and highly safety. Acupoint application and massage can relieve pain and inflammation, whose clinical application is hence recommended to be promoted.

In this study, good clinical efficacy was achieved in experimental group treated with acupoint application combined with acupoint massage, with duration of pain reduced, hospital

stay shortened and drug use reduced. Difference between the two groups was significant, $P < 0.05$, statistically significant. In addition, satisfaction of experimental group patients was greatly improved after treatment, reaching 96%, while satisfaction of reference group was 84%, so the former enjoyed significant advantage compared to the latter. Hence, as can be seen, treatment program of experimental group enjoys significant clinical effect. Acupoint application combined with acupoint massage enjoys good therapeutic effect for ankle sprain, which can significantly improve sleep quality of patients and thus alleviate patients' negative emotions due to hospitalization so that they actively cooperate with medical workers' treatment. In a certain sense, it can greatly enhance clinical outcomes, make patients confident in treatment of the disease, which is very favorable for speedy recovery and discharge of patients [8].

Acupoint application combined with acupoint massage can reduce usage of drugs, which is very important for physical rehabilitation of patients. In terms of treatment of ankle sprain, a basically used drug is ibuprofen sustained release capsule which, however, can easily cause bleeding during treatment, as well as certain damage to patients' renal function. So acupoint application combined with acupoint massage means a huge gospel for patients. The study obtained clinical data with objective value through data analysis, and the research results are consistent with views of Liu Hai and Liu [9] in their book, indicating that the results of this study have certain clinical application value. Further expansion of its application range in clinical medicine is recommended so that more patients benefit from it.

In summary, relatively effective treatment program should be taken for basketball players' ankle sprain, otherwise patients' post-rehabilitation will be affected and treatment will be delayed. According to studies, acupoint application combined with acupoint massage enjoys good clinical efficacy for ankle sprain, which not only shortens patients' hospital stay, reduce their degree of pain, improve their nursing satisfaction, but also, more importantly, reduce amount of drug use and avoid damage to their liver function. As a result, active expansion of its application range in future clinical medicine is recommended.

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