

A Study of Soft Tissue Infections Treated by a Combination of Ice Package and Hwangdan Paste

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ABSTRACT

The current study aimed to define the optimal application of ice package in the treatment of soft tissue infections, and to investigate the therapeutic effect of combined ice package and Hwangdan paste. Seventy patients with soft tissue infections from different parts of the body, such as back, abdomen, upper and lower extremities, and buttocks, were included in 40 cases in the study group and 30 cases in the control group. There were 47 males and 23 females in gender, and the age ranged from 10 to 40 years. Patients with non-purulent soft tissue infections with a predominance of local rather than systemic symptoms, i.e. less than 5 days after initial infection with soft tissue infections, were included in the study. Materials and Method: We used combination of Cooling packs and Hwangdan Paste. Next Hwangdan Paste-only application was evaluated. Results: The efficiency of the treatment of soft tissue infections was significantly higher in the study group(40 cases-100.0%) compared to the control group(24 cases-80.0%). Conclusion: Cooling packs application is a very effective treatment for soft tissue infections, and the method of application should be done 5 times a day, one hour at a time. Treatment of soft tissue infections with cooling packs combined with Hwangdan Paste resulted in a 100% cure rate and an average treatment duration of 5.08 ± 2.31 days.

Keywords: Soft Tissue Infections, Ice Package, Hwangdan Paste.

Article Information

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INTRODUCTION

1. Purpose

Firstly, to define the optimal application of ice package in the treatment of soft tissue infections, and secondly, to investigate the therapeutic effect of combined ice package and Hwangdan paste.

2. Study population

Seventy patients with soft tissue infections from different parts of the body, such as back, abdomen, upper and lower extremities, and buttocks, were included in 40 cases in the study group and 30 cases in the control group.

There were 47 males and 23 females in gender, and the age ranged from 10 to 40 years.

Patients with non-purulent soft tissue infections with a predominance of local rather than systemic symptoms, i.e. less than 5 days after initial infection with soft tissue infections, were included in the study.

3. METHOD

① Combination of Ice Package and Hwangdan Paste

An ice gel bag (Antibiotic Nano-Silver Icepack) was placed on the locally infectious lesion for every 30min~1h, and then rested for 2 h, again placed in the same manner as above. The icepack application time is shown in Table 1 below.

Table1. Daily icepack application duration (h).

No.	Icepack	Rest
1	8-9	9-11
2	11-12	12-14
3	14-15	15-17
4	17-18	18-20
5	20-21	Sleep~

As shown in Table 1, the number of daily ice package applications was 5. Considering the differences in location, age, and sex of the local infection patients during the poultice, the number of ice package application can be reduced, but the same timeline is used. Before sleeping, the Hwangdan Paste is adhered to the area of the infiltration range.

The combined application of ice package and Hwangdan Paste lasts for 1 to 2 days and then the Hwangdan Paste is singly used all day long.

②Hwangdan Paste-only application.

The Hwangdan Paste is adhered widely enough to the area of the infiltration range of the locally infectious lesion and changed

every two days under the follow-up observation.

ΔTreatment effect criterion

-Recovered: Systemic symptoms (headache, cold sensation, bony arthralgia, low fever, etc.) and local symptoms (pain, redness, infiltration, edema, etc.) disappeared completely and locally infectious lesions recovered to normal skin.

-Improved: Pain, redness, and edema disappeared even in locally infected lesions, but the infiltration did not completely disappear and tenderness remained.

-Worsened: A locally infectious lesion has become purulent and transferred to the surgical approach.

4. RESULTS

①Changes in systemic and local symptoms

Table2. Time to disappearance of systemic and local symptoms after treatment

Symptom Group	Systemic			Local			
	Headache	Cold sensation	Low fever	Pain	Edema	Redness	Infiltration
Study	8.08±1.62	12.4±1.27	12.4±2.18	14.3±2.48	12.5±4.43	21.5±4.74	39.8±9.71
Control	15.6±3.01	19.3±3.34	31.0±7.07	20.8±3.54	28.5±6.47	36.5±8.50	49.5±13.0

As shown in Table 2, changes in systemic and local symptoms after treatment were significantly different in the study group compared to the control group.

②Changes in treatment duration

Changes in the duration of soft tissue infection treatment are shown in Table 3.

Table 3. Changes in treatment duration

Duration Group	Effective Cases according to the duration					Mean days(d) (M±SD)
	~3	4~6	7~9	10~12	13~	
Study (40 cases)	12(30.0)	20(50.0)	6(15.0)	2(5.0)	-	5.08±2.31**
Control (30 cases)	2(6.7)	6(20.0)	10(33.3)	6(20.0)	6(20.0)	8.67±3.57

As shown in Table 3, the mean number of treatment days for soft tissue infections was significantly shorter in the study group (5.08±2.31 days) compared to the control group (8.67±3.57 days).

③Total results

The results of the treatment of soft tissue infections are summarized in Table 4.

Table 4. Total results

	Recoverd	Improved	Worsened	Efficiency(%)
Study	38(95.5)**	2(5.0)	-	40(100.0)
Control	18(60.0)	6(20.0)	6(20.0)	24(80.0)

As shown in Table 4, the efficiency of the treatment of soft tissue infections was significantly higher in the study group (40 cases (100.0%) compared to the control group (24 cases (80.0%)).

5. CONCLUSION

- ①Ice package application is a very effective treatment for soft tissue infections, and the method of application should be done five times a day, one hour at a time.
- ②Treatment of soft tissue infections with ice package combined with Hwangdan Paste resulted in a 100% cure rate and an average treatment duration of 5.08 ± 2.31 days.

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