

Repeated thermal therapy improves outcomes in patients with chronic pain

Akinori Masuda ^{a,*}, Masato Hattanmaru ^b, Chuwa Tei ^c

^a *Psychosomatic Medicine, Respiratory and Stress Care Center, Kagoshima University Hospital, Japan*

^b *Hattanmaru Hospital, Kagoshima, Japan*

^c *Cardiovascular, Respiratory and Metabolic Medicine, Kagoshima University Graduate School of Medical and Dental Science, Kagoshima, Japan*

Abstract. The purpose of this study is to clarify the effects of repeated thermal therapy in patients with chronic pain. Forty-six chronic pain patients were assigned to group A (multidisciplinary treatment, $n=24$) or group B (combination of multidisciplinary treatment and repeated thermal therapy, $n=22$). Thermal therapy was performed with 60 °C far-infrared ray dry sauna for 15 min and was then kept at bed rest with a blanket for 30 min once a day, 5 days a week for a total of 20 sessions. The number of pain behavior and anger score significantly decreased after treatment in both groups. After treatment, the number of pain behavior was slightly smaller ($p=0.07$) and anger score was significantly lower in group B than those in Group A ($p=0.05$). Two years after treatment, 17 patients (77%) in group B returned to work compared with 12 patients (50%) in group A ($p<0.05$). These results suggest that a combination of multidisciplinary treatment and repeated thermal therapy may be a promising method for treatment of chronic pain. © 2006 Elsevier B.V. All rights reserved.

Keywords: Chronic pain; Repeated thermal therapy; Far-infrared ray dry sauna; Pain behavior; Pain-related anger

1. Introduction

Behavioral therapy (BT), cognitive behavioral therapy (CBT), and pain rehabilitation are effective in reducing pain [1]. In some patients, prolonged refractory pain affects their daily life and social function despite BT–CBT and rehabilitation. Etiologically, they have psychosocial backgrounds such as chronic stresses, problems in the family and between married couples, childhood abuse, or insufficient family affection [2]. They

* Corresponding author. Tel.: +81 99 275 5751; fax: +81 99 275 5749.

E-mail address: masudaak@m.kufm.kagoshima-u.ac.jp (A. Masuda).

have pain-related anger and it is difficult to change their pain-related cognition and behavior. These social, emotional and environmental situations and incorrect pain-related cognition easily cause trouble for the therapist. In these cases, it is difficult to achieve therapeutic success with treatments such as BT-CBT and pain rehabilitation. Therefore, alternative effective treatments are needed. Local thermal therapy with a hot pack or paraffin has been used to treat pain [3]. We found that thermal therapy improved quality of life by improving sleep quality and general wellbeing in patients with chronic heart failure [4]. The purpose of this study is to clarify the effects of thermal therapy for patients with chronic pain [5].

2. Methods

2.1. Subjects

Forty-six patients were assigned to a multidisciplinary treatment group including CBT, rehabilitation and exercise therapy ($n=24$, group A) or a combination of multidisciplinary treatment and thermal therapy group ($n=22$, group B). There were no significant differences in age, gender, history of marriage or divorce, duration of illness, or the number of previous admissions due to chronic pain between the two groups (Table 1). The Ethics Committee of the Faculty of Medicine at Kagoshima University approved the experimental protocol.

2.2. Treatment program

All patients were admitted to our hospital for 5 weeks. One week after admission, behavioral counseling was given by a clinical psychologist to motivate the patients to participate in our treatment program. In group A, CBT and rehabilitation were started 2 weeks after admission, and exercise therapy was started 4 weeks after admission. In group B, thermal therapy was started 2 weeks after admission in addition to CBT and rehabilitation, and exercise therapy was started 4 weeks after admission (Fig. 1).

Table 1
Patient profile

	Group A ($n=24$)		Group B ($n=22$)		<i>p</i>
	<i>n</i>	%	<i>n</i>	%	
Gender					ns
Male	12	50	11	50	
Female	12	50	11	50	
Marital status					ns
Married	17	71	16	73	
Single	7	29	6	27	
Divorced	5	21	4	18	
Age (years) ^a	47.5 ± 8.5		43.5 ± 10.6		ns
Duration of illness (months) ^a	44.0 ± 14.2		46.0 ± 12.8		ns
The number of hospitalization ^a	2.4 ± 0.6		2.5 ± 0.2		ns

^a Mean ± S.D., ns; not significant. No statistically significant differences were found between the two groups in the variables.

Download English Version:

<https://daneshyari.com/en/article/2577256>

Download Persian Version:

<https://daneshyari.com/article/2577256>

[Daneshyari.com](https://daneshyari.com)