

## Effects of radial shockwave therapy for reducing lower back pain caused by chronic muscle strain / Teerapong Sukhon

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### Abstrak

#### **ABSTRAK**

The physiotherapy statistics from the Saraburi Hospital in Thailand show that patients with chronic lower back pain from muscle tearing have a higher tendency toward chronic pain, requiring continuous treatment. Most physiotherapists use radial shockwave therapy (RSWT) or radial pulse therapy to treat patients with chronic muscle tears. The aim of this study was to determine the immediate efficacy of RSWT on patients with lower back pain caused by chronic muscle strain. The purpose of this work is to assess the effectiveness of RSWT in the treatment of chronic back muscle pain. The type of this research is quasi-experimental research study. The location is this study is Physical Therapy Clinic at the Saraburi Hospital in Thailand. The study participants had pain intensities of greater than 5 out of 10. The experimental group (30 patients) received RSWT to the lower back for 10-15 minutes once a week for 6 weeks. The control group (30 patients) received ultrasound (US) treatments to the lower back using the semi-static technique with gel, but without turning the machine on, for 15 minutes once a week for 6 weeks. Both groups were taught to avoid bending and carrying heavy loads, as well as the correct way to lift heavy objects. None of the patients received medications, injections, massages, or acupuncture. The pain levels in both groups at work and at rest were measured using a visual analog scale. The treatment results were evaluated and compared at the 1st, 4th, and 6th treatments. The patient satisfaction was assessed at the 6 treatments as follows: 1 = most, 2 = high, 3 = moderate, 4 = low, and 5 = minimum. The effects on daily life and career performance were measured before the study and at the end as follows: 1 = most, 2 = high, 3 = moderate, 4 = low, 5 = minimum, and 6 = no effect. A statistical analysis was performed on the demographic data as well as on the pain level comparisons. The results of the RSWT and US treatments were measured while the patients were resting and working at 1, 4, and 6 months. Twelve and 18 of the patients were cured, respectively. In the US groups, 6 patients were statistically significantly better at the , , and treatments (but no cures). The post-treatment satisfaction was not significantly different between the RSWT and US groups. Consequently, the use of RSWT to treat chronic muscle strain can reduce pain immediately, and it can cure pain completely in some cases. Therefore, it should be used to treat more patients with chronic muscle strain. It should also be considered for use in chronic pain cases in which the patient does not respond to other conservative treatments.