

# Therapeutic Effect of Balneotherapy in Patients with Fibromyalgia

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**Abstract:** Objective: The aim of this study was to assess the effects of balneotherapy (BT) on fatigue and quality of sleep of patients with fibromyalgia.

Method: A total of 102 fibromyalgia patients participated in the study. Before inclusion, the patients were examined according to the 2010 American College of Rheumatology classification criteria. Patients in group I (n=50) were treated with physical therapy (PT) alone. Patients in group II (n=52) were treated with balneotherapy in addition to the same PT protocol in group I. Patients in both groups had a PT protocol for painful region lasting 45 minute for 5 days in a week with a total duration of 3 weeks. PT comprised hot pack for 20 min/day, transcutaneous electrical nevre stimulation (50–100 Hz) for 20 min/day, and ultrasound therapy (frequency, 1 MHz; intensity, 1 W/cm<sup>2</sup>) for 5 min/day. The group II was administered 15 sessions lasting 30 minute of balneotherapy at the “Burd Thermal” springs in Aydın. Water temperature of bath was 36-38°C. The BT sessions were performed at the same time of the day. The intensity of the activity and night pain was evaluated by using Visual Analog Scale (VAS); fatigue was assessed by multidimensional assessment of fatigue (MAF); quality of sleep was assessed by Pittsburgh Sleep Quality Index (PSQI). Participants were assessed by the same physician before and after the treatment.

Results: After treatment, there was significant improvement in VAS activity pain (p=0.008), VAS night pain (p=0.017) in the group I. But there was no significant improvement in MAF (p=0.224) and PSQI scores (p=0.106). In group II, there was significant improvement in VAS activity (p<0.001) and night pain (p<0.001), MAF (p<0.001) and PSQI (p<0.001) scores.

Conclusion: Balneotherapy when combined with physical therapy provide positive additive effect on fatigue and sleep quality of patients with fibromyalgia.

**Key words:** Balneotherapy, fibromyalgia, fatigue, sleeping disorder