

## OUTPATIENT BALNEOLOGICAL TREATMENTS FOR MUSCULOSKELETAL DISEASES

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### Abstract

**Introduction:** Balneological treatment procedures include balneotherapy (passive immersion of the body in mineral/thermal water), peloid therapy/mud therapy (therapeutic applications of medical peloids or muds on human body), hydropinotherapy (drinking cures of mineral water), mineral water inhalation therapy (inhalation of mineral water aerosols) and hydrotherapy (tap water passive immersion or aquatic exercise in tap water). These modalities have traditionally been derived in spa resorts and usually applied to the patients who travelled to those resorts during their stay at the spa facility/hotel.

**Materials and method:** The efficacy and safety of these balneological treatments when they are applied at spa/health resorts for a number of musculoskeletal diseases have been relatively well studied in randomized controlled trials. And the reported results mainly indicate the beneficial effects and good safety profile of balneotherapy and/or mud therapy in patients with musculoskeletal diseases; however, the availability of these treatments only at spa resorts where the natural origin of mineral water and peloid is, found limits and restricts the widespread use of these treatments despite promising evidence. To overcome this challenge, innovative approaches have been explored to provide such balneological treatments outside of the traditional settings for patients who would benefit from but could not afford this kind of treatment. Hydrotherapy (as tap water immersion) and peloidotherapy or mineral mud pack therapy (clay artificially mixed with mineral water) are provided in our university clinic setting as ambulatory care; however, the evidence on effectiveness of this type of hydrotherapy and peloidotherapy applications with an outpatient basis allowing the patients to continue their daily routine is limited. Interestingly these new therapeutic options are totally reimbursed by the social healthcare insurance system in Turkey. The rationality here is based on the clinical evidence from studies evaluating spa therapy regimens (balneotherapy and/or mud therapy at health resorts) that require travelling and staying at resorts leading to change in environmental/social milieu but increasing the expenses.

**Results:** With the aim to report the results of original studies testing the efficacy and effectiveness of this new type of balneological treatment approaches, we included two recently published publications from our department; an RCT comparing two different balneological treatment regimens (intermittent or continuous hydrotherapy plus peloidotherapy sessions) for knee osteoarthritis yielding comparable results; improvements in pain and function for both groups and a retrospective study of outpatient balneological treatment consisting of hydrotherapy and mud therapy in elderly patients with osteoarthritis providing initial evidence for the potential therapeutic effects and safety of such treatment.

**Conclusions:** Considering these promising results from the two initial clinical studies evaluating this new type of balneological treatment approach - combination of hydrotherapy and peloidotherapy- which can be given in routine outpatient practice at all possible settings/clinics, further clinical trials are needed to test the effects of such treatment in patients with different rheumatic and musculoskeletal diseases.