

ABSTRACT

Background: Osteoarthritis (OA) is the most common form of arthritis in the world and the major cause of disabilities in elderly. High prevalence of OA worldwide, including in Yogyakarta, becomes one of the reasons this study was conducted. Furthermore, Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) as the common pharmacological therapy for OA have been proven to cause many side effects. A lot of studies focusing on the alternative therapy (thermal mineral water therapy, balneotherapy, spa therapy, and mud-bath therapy) in OA have been conducted. The major content of Sodium Chloride in those modalities of hypertonic solution therapies in previous studies is one of the reasons of using the iodized salt as the material. Besides, it is widely used in Indonesia and can be easily found in the market.

Objectives: To analyze the effectiveness of iodized salt water therapy towards improvement of Lequesne Algofunctional Index (LAFI) score on knee osteoarthritis patient.

Method: This is a single-blind randomized control clinical trial study with 22 participants involved. They are then divided into control group who received ~0% of iodized salt water therapy and experimental group who received 10% iodized salt water therapy. The LAFI questionnaire was obtained in day 0, day 10, and day 24 of the study.

Results: Comparison of baseline characteristic of both groups shows no significant difference. For total LAFI score, no significant difference were found between experimental group and placebo, both between day 0 and day 10 ($p=0.47$; 95% CI: -1.48 - 3.12), and between day 10 and day 24 ($p=0.41$; 95% CI: -3.95 - 1.68).

Conclusion: There is no statistically significant improvement of patients who underwent iodized salt water therapy for total LAFI score.

Keywords: Osteoarthritis; Iodized Salt Water Therapy; Salt Water; Lequesne Algofunctional Index (LAFI)