

- [Format: Abstract](#)

Apply

[Send to](#)

[Lasers Med Sci](#). 2014 Jul;29(4):1371-6. doi: 10.1007/s10103-014-1529-0. Epub 2014 Feb 1.

High-intensity versus low-level laser therapy in the treatment of patients with knee osteoarthritis: a randomized controlled trial.

[Kheshie AR](#)¹, [Alayat MS](#), [Ali MM](#).

Author information

- ¹Department of Anatomy, Faculty of Medicine, Umm Al-Qura University, Mecca, Saudi Arabia.

Abstract

The aim of this randomized controlled study was to compare the effects of low-level laser therapy (LLLT) and high-intensity laser therapy (HILT) on pain relief and functional improvement in patients with knee osteoarthritis (KOA). A total of 53 male patients participated in this study, with a mean (SD) age of 54.6 (8.49) years. Patients were randomly assigned into three groups and treated with HILT and exercise (HILT + EX), LLLT and exercise (LLLT + EX), and placebo laser plus exercise (PL + EX) in groups 1, 2, and 3, respectively. The outcomes measured were pain level measured by visual analog scale (VAS) and knee function measured by Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC). Statistical analyses were performed to compare the differences between baseline and posttreatment measurements. The level of statistical significance was set as $P < 0.05$. The result showed that HILT and LLLT combined with exercise were effective treatment modalities in decreasing the VAS and WOMAC scores after 6 weeks of treatment. HILT combined with exercises was more effective than LLLT combined with exercises, and both treatment modalities were better than exercises alone in the treatment of patients with KOA.