

Short-term efficacy of low-level laser therapy in patients with knee osteoarthritis: a randomized placebo-controlled, double-blind clinical trial



Authors: Vanessa Ovanessian Fukudal; Thiago Yukio Fukudall; Márcio GuimarãesIII; Silvia ShiwallI; Bianca Del Cor de LimaIII; Rodrigo Álvaro Brandão Lopes MartinsIV; Raquel Aparecida CasarottoV; Patrícia Pereira AlfredoVI; Jan Magnus BjordalVII; Patrícia Maria Moraes Barros FucsVIII

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Abstract

This study was designed to evaluate the short-term efficacy of low-level laser therapy (LLLT) for improving pain and function in patients with knee osteoarthritis.

Forty-seven patients with knee osteoarthritis (79 knees), of both genders, participated in this randomized controlled double-blind clinical trial. They were randomly allocated to two groups: laser group with 25 patients (41 knees) and placebo group with 22 patients (38 knees). LLLT was performed three times a week, totaling nine sessions, using a AsGa 904 nm laser with mean power of 60 mW and beam area of 0.5 cm². Nine points were irradiated on the knee, with energy of 3.0 J/point. The placebo group was treated with the same laser device, The authors declare that there was no conflict of interest in conducting this work but with a sealed probe. Evaluations using Lequesne, visual numerical scale (VNS), Timed Up and Go (TUG), goniometry and dynamometry were conducted before the treatment started and after the nine sessions of LLLT.

A significant improvement in pain and function was found in all the assessments applied to the laser group. On comparing the laser group with the placebo group, significant differences were found in the VNS-resting and Lequesne evaluations. Conclusion: Treatment with LLLT improves pain and function over the short term in patients with knee osteoarthritis

Conclusion

After assessment of the data obtained in this study, we can conclude that the treatment with low-level laser alleviated pain and improved functional ability over the short term, among patients with knee OA.

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