

## The effect of low-level laser therapy on knee osteoarthritis: prospective, descriptive study

Hassan Soleimanpour · Khosro Gahramani ·  
Reza Taheri · Samad E. J. Golzari · Saeid Safari ·  
Robab Mehdizadeh Esfanjani · Afshin Iranpour

Received: 15 January 2013 / Accepted: 31 March 2014 / Published online: 15 April 2014  
© Springer-Verlag London 2014

### Abstract

**Background** Osteoarthritis (OA) is one of the most common joint disorders in the elderly which could be associated with considerable physical disability.

**Patients and methods** In a descriptive, prospective study, 33 patients enrolled in the study from which 15 people were

excluded due to incomplete course of treatment, leaving the total number of 18 patients with knee osteoarthritis. Gal-Al-As diode laser device was used as a source of low-power laser. Patients were performed laser therapy with a probe of LO7 with a wavelength of 810 nm and 50 mW output power in pulse radiation mode ( $F=3,000$ , peak power=80 W,  $\Delta t=$

**Authors' information** HS is Associate professor of Anesthesiology and Critical Care, Fellowship in Trauma Critical Care and CPR at the Department of Emergency Medicine, Tabriz University of Medical Sciences, Tabriz, Iran. He is also editorial board member of Emergency medicine journal (EGM) and Pakistan Journal of Biological Sciences (PJBS) and member of World Stroke Organization (WSO), too. KG and RT are anesthesiologists and members of Iranian Medical Laser Association, Tehran, Iran. SEJG is an anesthesiologist at the Department of Anesthesiology, Tabriz University of Medical Sciences, Tabriz, Iran. SS is resident of Anesthesiology and Critical Care Department, Iran University of Medical Sciences, Tehran, Iran and Managing Editor at Anesthesiology and Pain Medicine Journal. RME is member of Neurosciences Research Center, Tabriz University of Medical Sciences, Tabriz, Iran. AI is anesthesiologist at Saudi German Hospital, Dubai, United Arab Emirates.