

Osteomyelitis

EMLA Laser Health J 2007;2:46-67
European Medical Laser Association (EMLA)

The effect of low level laser therapy on chronic osteomyelitis: a case report

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Low level laser therapy (LLLT) could increase tissue perfusion, reinforcement of immune system and may have antibacterial effect. In this article we report the successful treatment of chronic osteomyelitis by LLLT.

Patient was a 16-year-old girl who had been severely injured in a truck accident. Her right metatarsal bones were crushed and resistant osteomyelitis complicated the patient, but she rejected amputation. She referred to our laser center due to chronic osteomyelitis with a discharging fistula. Antibiotics (ceftriaxone and cloxacillin prescribed according to the culture showed *Staphylococcus aureus*). We also applied laser with a dose of 10-12 J/cm², using continuous infrared light (wavelength 980 nm, power 100 mW) and continuous red light (wavelength 650 nm, power 30 mW), 3 times a week for 4 weeks and then 2 times a week until discharge was disappeared (totally 28 sessions).

After a month fistula discharged again and the same laser protocol along with laser acupuncture was applied for 23 sessions. This treatment was successful and after 3 months Elizarov's surgery was done. At this time (10 month after the last session of laser therapy) she can stand straight and walk.