

Infared Diode Laser In Low Reactive-Level Laser Therapy (LLLT) For Knee Osteoarthritis

M. A. Trelles, J. Rigau, P. Sala, G. Calderhead and T. Ohshiro

Degenerative joint disease (DJD) in particular in the knee is difficult to, cure successfully, at present often requiring surgical intervention. In addition the chronic DJD patient often exhibits symptoms of both a physiological and psychological nature. A study is presented using high reactive-level laser therapy (LLLT) with an 830 nm infra red continuous wave gallium aluminium (or aluminium) arsenide (GaAlAs) diode laser with an output power of 60 mW. in light contact Laser therapy for a population of 40 patients (power density of approximately 3 W/cm²). Four points around the patella were irradiated for 60 s each (energy density of 18 J/cm² per point. total of 72 J/cm² per session) two sessions per week for eight weeks.

Radiological, pain score and joint mobility assessments were made before the first session, immediately after at 4 months after the final LLLT session. All other medication and physical therapy was discontinued at least 15 days prior to the first treatment session.

Thirty-three patients (82%) reported significant removal of pain and recovery of articular joint mobility. The remaining seven patients felt there was no significant effect following LLLT and returned to their original pretherapy medication. The side effects were minimal. LLLT is concluded to be safe, effective and non-invasive alternative to conventional surgical and medical treatment modalities for DJD patients.

Laser Therapy 1991, 3:149-153