

Reflex Sympathetic Dystrophy / Complex Regional Pain Syndrome

Chonnam Med J. 2001 Mar;37(1):49-54. Korean.

Effects of Stellate Ganglion Irradiation by the Low-level Laser Therapy on Reflex Sympathetic Dystrophy of the Hemiplegic Arm.

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To evaluate the efficacy of low-level laser therapy (LLLT) on reflex sympathetic dystrophy (RSD) of the hemiplegic arm as an addition to a standardized treatment regimen. Twenty patients were assigned equally to a laser treated limb (LL) and a control limb (CL) group. All patients received 20-minutes laser irradiation, 5 times weekly for a period of 6 weeks. Follow-up studies were also performed in all patients from the initial stage to the end stage of LLLT. A significant improvement in the LL compared to the CL group was found on visual analog scale ($p < 0.05$), subjective and objective symptoms ($p < 0.01$), swelling in hands ($p < 0.05$) and elevation of body temperature in digital infrared thermal imaging ($p < 0.01$) after 6 weeks. From these results it is inferred that LLLT is a useful method of treatment which is able to reduce the symptom of RSD.; however, as a sole treatment for syndrome of RSD it is of limited value. Further studies are needed to evaluate the reliability of our findings and to compare LLLT to other established treatment methods.