

# The Effects of Laser Therapy in the Early Stages of Rheumatoid Arthritis Onset

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**PURPOSE:** To study the effects of laser therapy, in comparison with other modality trials (NSAIDs), at the onset of (RA).

## **SUBJECTS and METHODS:**

In the study 59 patients were included, in the first 6 - 12 months from RA onset. The patients were divided into three groups: Group 1 (21 patients) received laser therapy; Group 2 (18 patients) was submitted to placebo laser therapy and NSAIDs medication; Group 3 (20 patients) was treated only with NSAIDs. Physical therapy was instituted in all three groups. A GaAlAs diode laser (830 nm, maximum output power 200 mW) was used. During 4 months, courses of laser therapy - once daily for 8 days, monthly - were administered to Group 1 and laser placebo Group 2. The density of energy (2 - 4 J/cm<sup>2</sup>) and frequency (5 Hz or 10 Hz) were dependent on the number and severity of pain in affected joints.

## **RESULTS:**

The analysis of the clinical and biological parameters at the end of treatment showed a statistical significant decrease of duration of morning stiffness of pain at rest and during movements and improved acute phase reactants. The overall efficacy rate in these studies was 86% in group 1, 50% in the placebo laser group, and 40% in group 3.

## **DISCUSSION and CONCLUSIONS:**

After 4 months of treatment, our investigations showed that infra-red laser therapy was able to restore function, to relieve pain and to avoid the complications of the disease or NSAIDs therapy (digestive or renal) at RA onset, being the most perspective modality of treatment.