

# THERAPEUTIC USES OF L.A.S.E.R. A CASE REPORT

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L.A.S.E.R. is the acronym for Light Amplification by Stimulated Emission of Radiation. The LASER which we possess is soft L.A.S.E.R. 632 whose wave length is 6328° Au. It is Athermic, with very minimal side effects.

The L.A.S.E.R. beam is produced on electrically stimulating the gaseous mixture of 85% helium and 15% neon gas, which reverberate producing energy. The beam can be applied either through the scan or by the probe method.

The beam differs from normal white light, by its monochromaticity, coherence and non divergence. The physiological effects include wound healing, penetration capacities, analgesic effect, anti-inflammatory and anti-spasmodic properties.

Soft L.A.S.E.R. finds its therapeutic applications in Orthopaedics, Rheumatology, Dermatology, Dental, Veterinary Medicine and Sports injuries.

## CASE HISTORY :

In our Department of Physical Medicine and Rehabilitation, Annamalai University, we conducted a therapeutic trial on a case of rheumatoid arthritis hand.

Thirty six years old Poovanam, a case of Rheumatoid Arthritis with symmetrical hand involvement was taken up for the experimental trial. She had symmetrical involvement of the hand, with restriction of movements. Difficulty in doing her activities of daily living, finger to palm distance was 2.5 cms both sides and at the

beginning of the treatment she was able to inflate only upto 30 mm Hg with the sphygmomanometer cuff.

To the left hand the conventional wax bath and mobilisation exercises were given for a duration of 10 days and to the right hand L.A.S.E.R. was applied by the scanner method for a duration of fifteen minutes for the same period combined with mobilisation exercises. The prognosis in both hands were noted at the fifth and tenth day.

The patient had speedy recovery in the right hand compared with the left. Her finger to palm distance was reduced from 2.5 cm to 1.5 cm on the fifth day and to .5 cm on the tenth day of treatment. She was able to inflate upto 36 mm Hg with right hand on the 5th day and upto 40 mm Hg at the end of treatment and was able to perform her activities of daily living more independently with this hand. She also had marked improvement in her joint range of motion.

In the left hand the finger to palm distance was reduced only upto 1.8 cm from 2.5 cm. Her joint range of motion was comparatively less than right hand, giving us the impression that soft LASER treatment produced speedy recovery compared to the conventional modality of treatment.

This is just the beginning of our experimental trial and we are continuing our comparative study with more rheumatoid arthritis patients.

Here I would like to add that this soft LASER is contraindicated in patients with

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cardiovascular disorders, epileptics, and in pregnancy. Eyes should be protected by special pair of goggles to be worn both by the patient and the doctor. As direct penetration of L.A.S.E.R. beam into the eye may cause degenerative changes and ultimately end in blindness.

Finally, I would like to conclude in the words of Sir Issac Newton — “I may be like a boy playing on the sea shore looking for a febble or a prettier shell than ordinary, while the great ocean of truth lay all undiscovered before me”.

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