

Can Low Level LASER Therapy be used as a practical alternative to Combined Decongestive Therapy in young female patients with post-mastectomy Lymphedema?

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ABSTRACT

Purpose: to compare the effect of LLLT versus CDT in terms of limb volume, quality of life & treatment time.

Patients & Method: 40 postmastectomy females with unilateral BCRL. They were randomly divided into 2 equal groups; group (A) received CDT. Group (B) received LLLT. Both groups were treated 5days/week for 4 weeks. Circumference tape measuring. Health Related Quality of life (HRQL) assessment by upper Limb lymphoedema-27 questionnaire. Pre & Post- treatment measures were compared. Stop watch used.

Results: The percentage reduction of affected limb volume was not significantly better in group A (16.158 % from 2723.69 ± 324.91 cc to 2283.58 ± 311.63 cc) compared to 8.21 % (from 2807.98 ± 424.943 cc to 2577.478 ± 389.646 cc) in group B (p-value 0.16). The percentage improvement of HRQL physical score was 15.81% in group B which is border line significantly less than improvement in group A (38.42%), p-value = 0.05. The percentage improvement in HRQL psychological score was not significantly different between both groups (in group A = 12.3% compared to 14.28 % in group B, p-value = 0.92). The percent improvement of HRQL social score (21.08 % in group A) is border line significantly better than group B (12.6%), (p-value = 0.08). The time needed for CDT ranged from 65 to 80 minutes (mean = 72.95 +/- 4.93 min.), while LLLT application time was 20 - 23 min. (mean = 18.5 +/- 1.12) which is highly significantly shorter (p-value < 0.000**).

Conclusion: LLLT saves time. Recommended in high workload centers