

Low Level Laser Treatment Of Primary And Secondary Raynaud's Phenomenon

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Al Awami M, Schillinger M, Gschwandtner M E et al.

This pilot study was performed to evaluate the efficacy of LLLT as a new non-drug non-invasive treatment for patients with primary and secondary Raynaud's phenomenon. Forty patients (29 female, 11 male, mean age 51 years) with active primary (28%) and secondary(72%)Raynaud's phenomenon received 10 sessions of LLLT distant irradiation during winter months. Assessment of subjective and objective parameters was performed at baseline, one week after the last session and three months later. Variations of subjective parameters as number of daily acute episodes and severity of discomfort were assessed by a coloured visual analogue scale. A standardised cold challenge test using computed thermography of continuous temperature recordings by means of infrared telethermography was used to assess the digital blood flow. A significant improvement was noticed clinically and thermographically after 6 weeks and 3 months, respectively.

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Double-Blind, Randomised, Placebo Controlled Low Level Laser Therapy Study In Patients With Primary Raynaud's Phenomenon

Hirschl M, Katzenschlager R, Ammer K et al. Vasa 2002 May 31:91-4

No causal treatment of primary Raynaud's phenomenon is available due to its unclear aetiology. Low level laser therapy (LLLT) is applied in a multitude of medical conditions often without sufficient evidence of efficacy and established mechanisms. To assess the effect of this therapy in patients with primary Raynaud's phenomenon a randomised, double blind, placebo controlled cross over study was designed.: Absolute and relative frequency and intensity of vasospastic attacks during three weeks of either LLLT or placebo therapy and results of infrared thermography before onset and at the end of both therapy sequences were evaluated in 15 patients with primary Raynaud's phenomenon. RESULTS: Frequency of Raynaud's attacks was not significantly affected by low level laser therapy. Compared to placebo a significantly lower intensity of attacks during laser irradiation was observed, but no transfer effect occurred. Additionally the mean temperature gradient after cold exposure was reduced after laser irradiation, while the number of fingers showing prolonged rewarming was unaffected. Though further studies are necessary to confirm these results we could demonstrate for the first time in a double blind placebo controlled clinical trial that low laser therapy is a potential candidate for an effective therapy of Raynaud's phenomenon, although effects seem to be of short duration.