

## Long Pulse 1064 nm Nd:YAG Laser in the Treatment of Erythematotelangiectatic Rosacea

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### Abstract:

**Introduction:** rosacea is a chronic inflammatory disease of the skin affecting middle age patients presenting with persistent erythema, flushing, telangiectasia, papules, pustules, and phymatous changes. Many pharmacological and lasers been used in the treatment of this disease.

**Methods:** interventional study done by enrollment of 32 erythematotelangiectatic rosacea patients in the long pulse Nd:YAG laser treatment by using setting of spot size: 5mm, fluence: 4.07 J/Cm<sup>2</sup>, energy: 800 mJ and frequency: 5 Hz. About 2-3 passes performed in each treatment session, up to 3-4 sessions of 2 weeks intervals. Both erythema and telangiectasia were assessed on baseline visit and after two weeks of last treatment session. Erythema assessed by using clinician's erythema scale (CEA) by us and patient's self-assessment (PSA) by patients. Telangiectasia assessed by a designed scale, telangiectasia area involvement score (TAIS), measuring proportion of area involvement in the predilected areas.

**Results:** after completion of the treatment sessions by two weeks we assessed the patients clinical response. The mean CEA scale of the patients reduced significantly from 3 to 0.69 (p value<0.05) and mean PSA scale reduced from 3.47 to 1.16 (p value<0.05). There were no remarkable adverse effects after the treatment sessions apart from mild longstanding erythema and mild itching.

**Conclusions:** long pulse Nd:YAG laser in the studied setting is very effective in reducing erythema associated with rosacea, in addition to that it is a tolerable method without causing any significant adverse effects.