



ACNE, ROSACEA, AND RELATED DISORDERS (INCLUDING HIDRADENITIS SUPPURATIVA)

## **NODULAR ACNE- SEQUENTIAL USE OF FREEZE THAW EBD AND ERBIUM GLASS LASER**

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**Background:** Acne is a chronic inflammatory disease of the folliculo-sebaceous unit. It is a multifactorial disease of the sebaceous follicles induced both by bacterial and hormonal factors. Nodular acne is grade III acne which occurs due to spread of sebum in the dermis resulting in inflammatory cell collection. Many topical and oral medications are recommended for acne. Nodular acne are difficult to treat only with topical and oral medications. But these when combined with lasers work much better on acne. A combination of erbium glass laser and cryotherapy energy based device has been shown to significantly improve the nodulo cystic acne on the face. Erbium glass heats the sebaceous glands thereby temporarily arresting the sebaceous output. Cryotherapy works at a temperature of -100C to +450C which causes inhibition of gland activity by freezing the cells within the glands, resulting in necrosis and diminished gland function.

**Observation:** 80 patients with nodular acne who involved women in the reproductive age group who could not be put on isotretinoin, patients who did not show any response to topical and oral acne medications were treated with a combination of cryotherapy energy based device followed by mid-infra red non-fractional erbium glass 1540nm laser thrice at an interval of two weeks each. During cryotherapy the sebaceous glands go through freeze thaw cycle which decreases the sebum secretion. Vacuum assisted Erbium glass 1540 nm causes bulk heating of the dermis where sebaceous glands are located. 58 patients responded well with resolution of the acne. 10 patients lost for follow up. Six patients did not find much difference after the laser.

**Key message:** A novel modality of treatment for acne is to combine cryotherapy along with erbium glass laser.

