

Cryosurgery for the Treatment of Rosacea

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Rosacea is a common, chronic condition that occurs in both men and women and mainly is seen on the central portion of the face. It is a clinical diagnosis with a spectrum of clinical signs, including flushing, persistent erythema, papules, pustules, telangiectasia, coarseness of skin, and scaling. Cryosurgery may be administered either as adjunctive treatment or monotherapy for the treatment of rosacea.

Advantages of cryosurgery for the treatment of rosacea include easy treatment, low cost, and safety during pregnancy; it also is useful in patients with rosacea for whom oral or topical medications are contraindicated or undesirable.^{1,2}

There are 4 types of rosacea: erythematotelangiectatic, papulopustular, phymatous, and ocular rosacea.³ Although the condition can become severe or lead to disfigurement, most patients with rosacea present to dermatologists with complaints about cosmetic appearance due to mild or moderate disease. Treatment generally includes oral and topical medications or a combination of both.

Cryosurgery is effective for the erythematotelangiectatic and the papulopustular types of rosacea.^{4,5} Cryosurgery is useful for a wide variety of cutaneous lesions, including diverse benign, premalignant, and nonmelanotic skin cancers.⁵ The goals of cryosurgery include reduction of inflammation and mild to severe necrosis of tissue. The method, duration, and degree of freezing vary depending

on the type of eruption and the character and size of the lesion.

For the papulopustular type of rosacea, cryosurgery is used to diminish or clear the papules or pustules by reduction of inflammation, as is the case with the treatment of acne vulgaris and cystic acne. Cryosurgery for the treatment of rosacea is performed using either the open spray technique or with the “slush” technique. The former is employed using an acne spray tip. Either the individual lesions or the involved fields are treated for approximately 4 to 8 seconds. Treatment is administered every one to 2 months, or more frequently.

The slush technique involves the light application, for several seconds, of crushed dry ice that has been dipped into acetone. A small block of dry ice can be made easily in the physician's office by converting gaseous carbon dioxide to solidified carbon dioxide by using a simple gadget that is available from chemical supply distributors. Eruptions are treated in a similar manner with the slush technique as the open spray technique but very light cooling is administered to the involved areas; that means approximately 2 to 4 seconds of cooling, an amount that is insufficient to cause much of a reaction. Cryosurgery for the treatment of rosacea can be performed every 3 to 6 weeks and can be administered by a nurse or medical assistant.

Treatment response to cryosurgery can be rapid and quite dramatic for the papulopustular type of rosacea. The results are good to excellent with return to healthy skin appearance. The erythematotelangiectatic type requires prolonged treatment but the reduction and

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Figure 1. Erythematotelangiectatic type of rosacea on the left cheek of a 48-year-old woman.



Figure 3. Erythematotelangiectatic type of rosacea on the left cheek of a 51-year-old man.



Figure 2. Notable improvement on the left cheek of a 48-year-old woman 10 weeks after initiating cryosurgery using the slush technique for the treatment of erythematotelangiectatic rosacea.



Figure 4. Notable improvement on the left cheek of a 51-year-old man 11 weeks after initiating cryosurgery using the slush technique for the treatment of erythematotelangiectatic rosacea.

elimination of erythema and telangiectasia is very satisfying to the patient (Figures 1–4).

Treatment of rosacea with cryosurgery is painless, though the patient may feel a slight brief stinging or coldness at the moment of treatment. There are few side effects or contraindications. One should be cautious and not over freeze the eruption in order to avoid any blistering or oozing.

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