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Cumulative Experience with Solcoderm in the Treatment of Basal Cell Epithelioma

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Abstract. Over 300 patients with basal cell epithelioma have been treated with Solcoderm during the past 4 years. The treatment is simple and effective for small superficial lesions and particularly useful in patients with periocular or multiple lesions.

The surgical or radiologic ablation of basal cell epitheliomas (BCE) is standard therapy with a high success rate [1, 2]. Nevertheless, there has recently been increasing interest in the use of topically applied agents to treat these lesions [2–7]. This interest is probably stimulated by concern about the cosmetic results and the relative complexity of the standard procedures which often involve local anesthetics or highly skilled technology. The problem is magnified by the fact that the incidence of BCE is increasing, the tumors are often multiple, mostly on exposed and cosmetically important areas, and an increasing proportion of affected people are in the younger age group [2, 8].

The goal of BCE treatment is complete removal of the tumor with minimal destruction of surrounding normal tissue and cosmetic distortion. A radical surgical approach to lesions in difficult locations such as skin folds surrounding the nose, ear lobes, and eyes is particularly disturbing. Cosmetic and even functional impairment can be a real problem for the patient with a periocular lesion.

With any method, the more vigorous the approach to achieve complete removal, the more likely a residual cosmetic or functional problem. *Mohs* [6] seeks to accomplish the optimal extent of treatment by a very effective but tedious chemosurgery procedure which monitors the histopathology of a sequence of lamellar excisions. Topical treatment by measures such as liquid nitrogen or 5-fluorouracil cream [3–5, 7] is much less demanding, but is associated with significant pain, inflammatory reaction, and difficulty in controlling the extent of tissue affected by the application.

Our initial experience with Solcoderm topically applied with a sharp wooden appli-

cator demonstrated the simplicity, local tolerance, and fine control achievable with this treatment. We, therefore, undertook a series of studies of the response of BCE lesions to Solcoderm treatment summarized in this report. The treatment in our hands is a simple, safe, and essentially painless outpatient procedure, applicable to elderly, disabled, poor surgical risk patients and particularly convenient to treat multiple lesions. Our double-blind comparisons [9, 10] leave no doubt that the action of Solcoderm is quite different from and superior to that of plain corrosive acid. Possible mechanisms responsible for this superiority are discussed elsewhere [9, 11–13].

Our initial group of 96 histologically confirmed BCE patients [14] included failures of standard treatment (recurrences) and relatively large and deep lesions. Consistent with experience with other methods of treatment [2, 15, 16], the therapeutic response to Solcoderm applied to such lesions often fell short of complete cure, and the incidence of recurrences with such lesions can be expected to be higher than with small superficial lesions. Our series has not yet been followed up long enough to generate firm recurrence rate data. However, the recurrence rate after Solcoderm treatment of small superficial BCE to date is quite low and comparable to standard treatment results. When recurrences do occur, retreatment with Solcoderm is simple and often feasible when skin changes resulting from multiple prior radiologic or surgical procedures make further treatment with these standard methods difficult.

Of particular interest to us has been periocular BCE. Since Solcoderm can be damaging to the conjunctiva and cornea, rabbit studies were undertaken to evaluate how these structures might be protected when periocular lesions are treated. These studies, conducted jointly with the Department of Ophthalmology at our institute, are reported in more detail elsewhere. Aided by these observations, it was determined that proper positioning of the subject and retraction of the eyelid to be treated allowed application of Solcoderm to the desired lid area without significant ocular damage. Corneal and conjunctival shielding proved not to be very feasible nor necessary.

A series of 28 patients with 32 ocular or periocular tumors (29 BCE) were treated with topical Solcoderm carefully applied with the patients in the supine position and the involved eyelid retracted and fixed to the adjacent skin with adhesive tape so as to minimize the likelihood that material applied to the lesion might run into the eye. The treatment itself generally took only 10–15 s. Characteristically there was a slight burning sensation, and occasionally a topical anesthetic (benoxinate hydrochloride) solution was instilled.

In general, the cosmetic and functional results were excellent. A flat, or slightly depressed, skin-colored scar was essentially all that remained at the site of the lesion. A mild conjunctivitis or superficial corneal erosion which developed in a few subjects disappeared spontaneously within 2–3 days. In 4 patients there was mild residual ectropion, entropion, or partial loss of eyelashes of a degree readily acceptable to the patient.

During the follow-up period of 18–55 months, there were 6 recurrences, 5 of which were satisfactorily eliminated by repeat Solcoderm treatment. Thus, 32 of 33 periocular lesions (96.7%) which would have required surgery or radiation and their consequences had been eliminated with

minimal discomfort and excellent cosmetic results by topical Solcoderm treatment.

Overall, we now have treated more than 300 BCE patients in the past 4 years with topical Solcoderm and find this treatment modality to be highly useful. Best results were obtained with small superficial lesions and most gratifying results in the periocular region and with multiple lesions.

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