

Glaucoma and Amaurosis Associated with Long-term Application of Topical Corticosteroids to the Eyelids

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Abstract. The development of glaucoma and amaurosis in a 29-year-old woman with atopic dermatitis is described. The association of the eye involvement with many years of daily application of fluorinated corticosteroid ointment to the eyelids is suggested.

Key words: Glaucoma; Amaurosis; Topical corticosteroid

Increased intra-ocular pressure following application of corticosteroid preparations to the conjunctival sac is well documented (1, 3).

To the best of my knowledge, only two reports have appeared on corticosteroid-induced glaucoma caused by prolonged topical treatment of dermatoses of the eyelids (2, 6). The fact that this iatrogenic complication may also result in amaurosis, is illustrated by the case described here.

CASE HISTORY

The patient is a 29-year-old woman. She has no history of eye disease, nor had any of her family. Since early childhood, she has been treated with topical corticosteroids due to atopic dermatitis, which also involved the face. During the last 15 years she daily applied a 0.5% fluocortolone cream (Ultralanum 0.5%) to her face, including the eyelids. She has never received systemic corticosteroid therapy. In December 1978 she was admitted to the Department of Ophthalmology because of a gradually increasing blurring of the vision and constant watering of the eyes.

The examination showed a severe intra-ocular hypertension, 63 mm in the left and 43 mm in the right eye. In addition the left eye was amaurotic, a fact the patient had not noticed. There was atrophy of the optic disc (Fig. 1) and an opacity in the posterior part of the lens. The right eye showed a defect in the visual field in the upper nasal quadrant. The history and findings strongly suggested the diagnosis of steroid-induced open-angle glaucoma. The use of topical corticosteroid was discontinued. Normal intra-ocular pressure was restored in the right eye during medical treatment. In the left eye, however, the tension remained high.

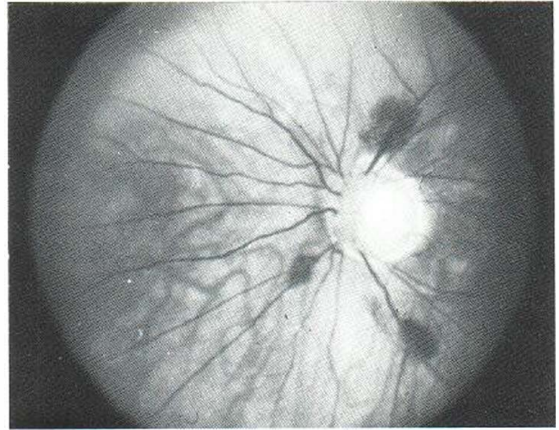


Fig. 1. Left fundus, with atrophy of the optic disc and scattered retinal haemorrhages.

Normal intra-ocular pressure was found in all her relatives examined.

In January 1979 the patient was admitted to the Department of Dermatology. She presented the typical picture of adolescent atopic dermatitis, including involvement of the entire face (Fig. 2). No clinical signs of epidermal atrophy were seen on either the face or the eyelids. The only sign indicating long-term topical corticosteroid treatment was a slight facial hypertrichosis.

COMMENTS

Increased intraocular pressure has been found in approximately 1/3 of the patients treated with topical ocular corticosteroids (1, 3). It has also been seen during systemic administration of corticosteroids (5). Steroid-induced open-angle glaucoma is therefore a well documented adverse effect not infrequently seen by ophthalmologists (1, 3).

The pathogenesis of steroid-induced open-angle glaucoma is not known. A hereditary predisposition has been suggested (1, 3). In the present case, however, normal intra-ocular pressure was found in all her relatives examined.

As in our patient, the 2 patients earlier reported by others (2, 6) had applied topical corticosteroid to the eyelids for many years. It has been speculated whether the ocular involvement was due to corticosteroids reaching the circulation after absorption from the skin (2). It seems more reasonable, however, that small amounts of the corticosteroid ointment contaminate the conjunctival sac from the margins of the eyelids and become absorbed into the eye, as do topical ocular preparations, causing the same side effects (2, 4, 6).

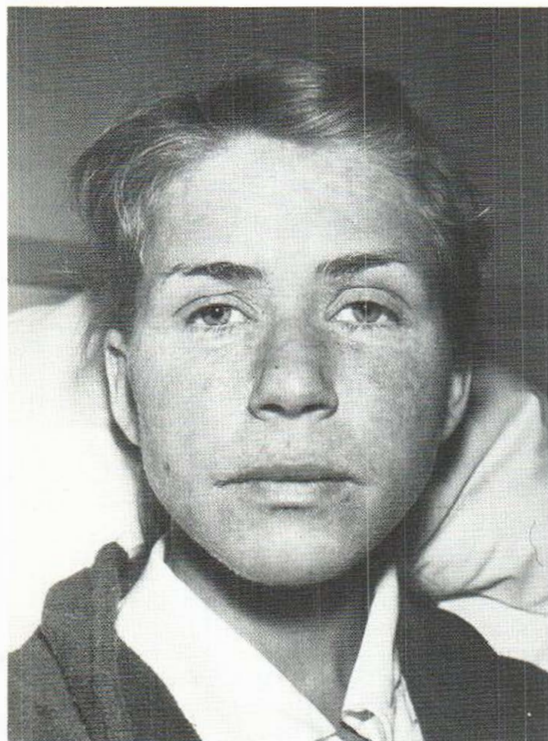


Fig. 2. The patient presenting atopic dermatitis with involvement of the entire face.

Atopic cataract is a well-known complication of atopic dermatitis. Cataract has also been seen after topical ocular and systemic treatment with corticosteroids (4). Whether the lens opacity found in the left eye of our patient represents an incipient atopic cataract or is caused by topical corticosteroids remains to be elucidated.

In the light of the widespread use of topical corticosteroids, also to eyelids, it is remarkable that only 2 cases of corticosteroid-induced glaucoma have so far been reported. Nevertheless, we have no other explanation for the serious eye damage in our patient. It is therefore necessary to stress that the medication must not be allowed to enter the eyes. Furthermore, periodic measurement of the intraocular pressure is advisable in patients treated over a long period of time, especially if there is a family history of glaucoma.

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Combination Chemotherapy in the Tumour Stage of Mycosis Fungoides with Cyclophosphamide, Vincristine, VP-16, Adriamycin and Prednisolone (COP, CHOP, CAVOP):

A Report from the Scandinavian Mycosis Fungoides Study Group

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Abstract. Combination chemotherapy with cyclophosphamide, vincristine, VP-16, adriamycin and prednisolone was given in 9 cases of mycosis fungoides in the tumour stage: 3 of these patients received COP, one received CHOP, and 5 CAVOP. Complete remission was obtained in one case and partial remission in 5, the response rate thus being 6/9. It was impossible, however, to maintain remission. The treatment was reduced or withdrawn owing to toxic effects in 4 cases. These forms of combination chemotherapy are beneficial in non-Hodgkin lymphomas but do not seem to be of value in the tumour stage of mycosis fungoides.

It is still not clear whether early aggressive chemotherapy in tumour cases of mycosis fungoides is of more benefit than a less aggressive