Styes

Encouraging results have been obtained during recent years from the treatment of styes by autogenous vaccines. The usual causative organism is the *Staphylococcus aureus*, and it can be as obstinately persistent and troublesome in this situation as in other parts of the body. Lowered resistance to this organism is often quite compatible with extremely good general health. In many cases of recurrent styes the refraction is normal, the general health good, and the rest of the body is free from staphylococcal outbreaks. It is not to be wondered at that an enormous number of different remedies have been administered by all the usual channels in an attempt to cure repeated styes of doubtful origin.

Damage to the Cornea

By reason of its ectodermal origin the cornea shares the susceptibility of the skin to certain infections and dystrophies. Thus in myxoedema degenerative changes sometimes occur in the cornea comparable to the skin disorder which is characteristic of that disease. Severe corneal ulceration is by no means uncommon as a complication of small-pox. Measles is another notorious cause of corneal ulcers. One of the most dangerous of all skin diseases for the eye is pemphigus, which may lead to desiccation and progressive contraction of the conjunctiva, symblepharon, and widespread corneal opacity. Dermatitis herpetiformis may act in the same way.

A few years ago I saw a boy, aged 14, suffering from shrinkage of the right conjunctiva at the lower fornix. The cornea of this eye was unaffected. The left eye showed marginal blepharitis, together with xerosis and shrinkage of the conjunctiva, and multiple corneal opacities. In this case there was a history of an attack of water-blister all over the body nine years previously, since which time there had been several other attacks, usually lasting about three months. For the two years immediately preceding my examination he had had no bad attack of blistering. During some of the later attacks both eyes, especially the left one, had discharged. There had also been some small ulcers on the palate and inside of the cheeks, but these had left no scars. Dr. Freshwater, who kindly examined this patient for me, was of the opinion that the skin attacks in the past were more likely to have been dermatitis herpetiformis than pemphigus.

Rosacea

Rosacea is one of the most important examples of a skin disease capable of involving the cornea. The great majority of sufferers are exempt from corneal complications. Most of them get no worse eye trouble than a mild scaly blepharitis, together with perhaps an occasional meibomian cyst. Conjunctivitis arising in the course of rosacea is often of sinister import. The characteristic rosacea conjunctivitis is associated with much photophobia and lachrymation, and does not usually remain as a mere conjunctivitis. After a while the enlarged vessels of the ocular conjunctiva show a tendency to invade the periphery of the cornea as forerunners of keratitis.

Rosacea keratitis is always accompanied by excessive vascularization of the cornea, repeated exacerbations at irregular intervals, multiple ulcers, and the gradual formation of corneal opacities which are often disposed in a wedge-shaped or tongue-shaped fashion principally in the lower half of the cornea. In the early stages it is not uncommon to find grey or white nodules at the ocular conjunctiva near the limbus. This phenomenon constitutes one of the many ways in which the clinical behaviour of kerato-conjunctivitis due to rosacea resembles phlyctenular disease. In many cases of rosacea keratitis, especially if

they can be examined at leisure during a quiescent stage, it can be observed that some of the scars are faceted as a result of the thinning which often occurs. This destruction of the corneal substance may be so rapid and severe as to produce spontaneous perforation of the cornea in a certain proportion of cases.

I believe that ophthalmic surgeons are increasingly on their guard not to overlook these cases of rosacea. Patients with a severe facial efflorescence can hardly be missed by anyone who has ever had the opportunity of being shown a case of this disease. Not uncommonly, however, the eyes may be badly affected at a time when there are few obvious signs on the face. In my opinion any obvious or even suspected case of rosacea which may happen, in the first place, to come under the notice of an ophthalmic surgeon should be referred to a dermatologist in order that the actual disease may be systematically attacked. In a large proportion of cases each relapse of keratitis will be found to coincide with a fresh outbreak of the facial trouble. Bearing in mind the fact that spontaneous improvement and long remission from symptoms, even in the absence of treatment, are frequently noted in the course of this disease, it would appear that the actual results of local eye treatment are disappointing. Some cases are said to benefit greatly from the local application of x rays, under expert control, to the cornea. Local ultraviolet light is of doubtful value. Carbolicization of ulcers is to be avoided if possible, because of the danger of exaggerating the tendency to form large adventitious corneal vessels. Atropine, normal saline solution, and the use of dark glasses should be advised until ulceration has subsided.

BIBLIOGRAPHY

- Benedict, W. I. (1926). *J. Amer. med. Ass.*, **87**, 1735.
Fuchs, E. (1896). *Wien. klin. Wschr.*, **9**, 109.
Krestin, D. (1927-8). *Quart. J. Med.*, **21**, 177

DERMATOLOGICAL ASPECT OF AFFECTIONS OF THE EYE*

BY

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Rosacea is the condition with which the ophthalmologist and the dermatologist are most often concerned together. Darier describes rosacea as a persistent passive erythema of the face, which leads to the production of telangiectases and is sometimes complicated by pustules. In one group of cases, he says, rosacea is preceded by a first stage of recurrent attacks of acute congestion of the face. In the second group it is derived from an affection of the epidermis which he has named "kérose." This we usually call the seborrhoeic state. Thus rosacea is primarily a vascular disturbance affecting the cheeks, nose, forehead, chin, and sometimes the neck and the temples. This disturbance has been most commonly attributed to digestive troubles, but I have welcomed the story of flatulence, fullness after meals, flushing after meals, alcohol, tea, etc., and any other symptoms of gastric disturbance, with some relief when such a history has been forthcoming. On the contrary, in at least one-half of my cases no amount of cross-questioning has been successful in extracting the admission of gastric or intestinal symptoms of any kind. I have, however, been

* Read in opening a discussion in the Section of Ophthalmology at the Annual Meeting of the British Medical Association, Belfast, 1937

impressed with the frequency of the story of life-long vasomotor disturbance, varying from what is generally called a fresh complexion to marked vasomotor instability often associated with acrocyanosis and hyperhidrosis of the extremities. In the young this disability is quite tolerable, but towards middle age the high colour tends to become fixed on account of permanent enlargement of the skin capillaries, and it may be aggravated by secondary factors. In the normal skin even this is not disagreeable, but in seborrhoeic subjects the persistent congestion of the face is often complicated by hypertrophy of the sebaceous glands, leading to rhinophyma and to acneiform pustular infection. In excessively dry and delicate skins to the rosaceous erythema may be added diffuse scaliness or a small dry papular eruption.

Causes of Rosacea

These changes appear to take place occasionally in perfectly healthy subjects, though unquestionably they are often aggravated by gastric disorders and other factors: among the latter the most important seem to me to be faulty diet and hygiene. For example, I have in mind a personal acquaintance, a large man of fresh complexion whose face was grossly disfigured at a comparatively early age by chronic rosaceous erythema, blepharitis, and acneiform infection. On the advice of one of my colleagues he put himself on a strict diabetic diet. The improvement was dramatic, and to the best of my knowledge he has not relapsed during the course of over ten years, though the high colour naturally persists. He was a fairly common type, but rosacea is quite often seen in subjects of feeble constitution, especially those who spend the greater part of their lives indoors. It is among this class that excessive tea-drinking may often be an important factor. I remember the case of a housekeeper who from the beginning of the year to the end only went out of doors to shop, except for an annual holiday, during which her gross acne rosacea could be relied upon to clear up. I have seen many other cases of the same type respond to a holiday in the open air. I am not referring, of course, to the vascular background which always persists to some extent.

Dr. Sybil Eastwood found symptoms of gastric disturbance in 95 per cent. of the cases of rosacea she investigated, and a low hydrochloric acid curve in 48 per cent.; she believed that the effect of a low acid secretion was important only in so far as it affected gastric motility. This group responded best to treatment. They remained well so long as they continued to take hydrochloric acid with their meals, followed in some cases by alkali one and a half to two hours afterwards. She also found diet as important in treatment as the correction of secretory defects.

Brown observed symptoms of gastric disturbance in 61 per cent. of his cases, but while previous investigation of a smaller number by Ryle and Barber had led him to expect a high proportion with low acid secretion, he found achlorhydria or hypochlorhydria in only 30 per cent., and this percentage was actually lower than that occurring in a miscellaneous collection of other dermatoses. It would appear, therefore, that gastric disturbance associated with achlorhydria or hypochlorhydria is important in only a small proportion of rosaceas. The menopause, during which vasomotor disturbance may be accentuated, is also the principal cause of some rosaceas. From my own experience I would place the various causes of rosacea in about the order of their relative importance as follows:

1. Vasomotor instability; constitutional, and often inherited. This appears to be the background in the majority of rosaceas.

2. Vasomotor instability, aggravated on the face by gastric or gastro-intestinal disturbance; by faulty hygiene including excessive tea-drinking, alcoholic excess, faulty diet, and lack of recreation in the open air.

3. The same factors in the absence of constitutional vasomotor instability.

4. Vasomotor changes associated with or aggravated by the menopause.

In seborrhoeic subjects these vascular changes may be complicated by rhinophyma and acneiform pustulation—acne rosacea—so that seborrhoea or kérose (Darier) is an additional factor.

Eye Complications

So far as eye complications are concerned, I have had a certain number of cases of rosacea keratitis referred to me from the eye department at St. Thomas's Hospital. Among these I have noticed at least as many cases belonging to the first group I have mentioned as in the others, and in a good many of them the rosacea has consisted of no more than telangiectases of the cheeks and nose. Some of these patients have accepted the gradual rosaceous enlargement of their cutaneous vessels as a normal event in their lives, and I am inclined to agree with them.

This leads me to ask a question, the answer to which I hope to obtain to-day—namely, what is the exact relation of rosacea to its corneal complications? In several cases of rosacea I have noticed, in the complete absence of infection of the skin or of blepharitis, congestion of the conjunctiva of the lower eyelids. This I have regarded as a direct extension of the vascular hypertrophy which affects the face. Is it possible that excessive vascularization alone of the conjunctiva of the lower eyelid may lead eventually to these eye changes?

Blepharitis

With regard to blepharitis I would like to draw attention to a small point in terminology about which I believe some confusion exists. Many years ago Sabouraud, at one of the Annual Meetings of the British Medical Association, drew a sharp line of distinction between seborrhoea and dandruff. Seborrhoea he defined as an excessive flow of sebaceous secretion, which he thought would be better termed steatorrhoea. All types of scaliness of the scalp, he said, should be rigidly excluded from seborrhoea. The term seborrhoea sicca is, however, still used for dandruff, and will probably continue to be used rather than the more correct pityriasis simplex capitis or dandruff. Personally I have examined the scales of dandruff many times and have always found them fairly obviously to be epidermal scales, with or without droplets of fat according to the degree of the oiliness of the skin. Generally dandruff is accompanied by seborrhoea, perhaps because seborrhoea favours the growth of the pityrosporon of Malassez. There appear to be two main types of blepharitis.

The first type is seborrhoeic blepharitis, in which the margins of the lids are mildly inflamed and the bases of the lashes surrounded by crusts, which I take to be inspissated secretion. This condition is occasionally accompanied by dry dermatitis of the eyelids and sometimes by dandruff with or without seborrhoeic dermatitis in the scalp or elsewhere. It is certainly difficult to clear

up, but it is infinitely less disagreeable than the second variety, which is in fact sycosis of the eyelashes.

Mr. Doggart has drawn your attention to the fact that this type of blepharitis often begins in childhood after an attack of measles. Almost as often it follows what Sabouraud called confluent impetigo, a condition which is seen most often in children; we often call it impetiginous or infective dermatitis. It may result from a neglected pus infection, particularly one caused by pediculosis capitis, or it may extend into the scalp from fissured impetigo of the post-auricular folds. It is a very intractable condition, but while the scalp infection often clears up eventually, that of the eyelids generally persists for years, sometimes into adult life, when it may be followed in males by sycosis barbae. In adults sycosis of the eyelashes also complicates chronic staphylococcal infection of the nasal vestibule and is generally accompanied by sycosis of the upper lip. I see very little chronic impetiginous dermatitis of the scalp in children now as compared with ten years ago, and attribute the improvement to the care bestowed on children by school medical services. In fact, to the best of my recollection I have not seen a new case for several years. For the same reason pediculosis capitis is rarely met with among the children attending my hospital out-patient clinic.

Dermatitis of the Eyelids

I would divide these cases into: (1) Infective, in which the dermatitis is associated with blepharitis or conjunctivitis, or other infective condition. (2) Dermatitis due to irritation by chemical substances. (3) Seborrhoeic dermatitis involving the eyelids. (4) Cases which it seems impossible to attribute to any of the above causes. Unfortunately the last group appears to be more common than the others.

The condition begins generally as an acute oedematous swelling of the eyelids accompanied by burning and irritation, and is followed eventually by desquamation. Thereafter there are recurrent attacks and often a chronic persistent dermatitis. I admit that it may be very difficult to exclude chemical irritation, but volatile irritants such as the emanations of plants generally attack the face and other exposed parts as well as the eyelids. Cosmetic preparations, perfumes, hair dyes, etc., are easily excluded. I have looked for evidence of infection in the canthi but generally without success, and I have wondered whether a low-grade infection may be present there without some objective evidence of it, such as fissuring. Some of these patients may perhaps be sensitive to unavoidable stimuli, such as cold winds and sunlight. I have certainly met with dermatitis of the eyelids in fair-skinned subjects who have to some degree experienced intolerance to climatic stimuli throughout life. Some of my patients have been debilitated and neuropathic, and there is no doubt that the condition often persists more or less indefinitely as the result of rubbing to allay irritation. The local treatment is difficult. The inflamed eyelids seem to be intolerant to lotions containing powders, to fatty preparations, and to mildly astringent lotions. In fact, I have found cold water compresses more useful in the acute stage than any other application. To avoid gumming of the eyelids in the morning I prefer liquid paraffin to ointments.

Miscellaneous Dermatoses

Lupus vulgaris, lupus erythematosus, and basal-celled epithelioma attack the eyelids with some frequency. The treatment of these purely dermatological conditions

hardly comes within the scope of the present discussion. So far as dermatologists are concerned I think I am probably right in saying that one of the principal objects in treatment is to avoid doing anything locally that may lead to ectropion.

Pemphigus vulgaris may attack the conjunctiva together with the mucous membranes and skin, though fortunately this happens rather rarely. In cases of the chronic type, which may last for years, pemphigus leads to the severe destructive changes mentioned by Mr. Doggart. In the more acute cases death has generally followed too soon for these changes to take place. I have never seen the conjunctiva affected in dermatitis herpetiformis, though this condition is not rare and is extremely chronic.

Some years ago Mr. Gibb showed me at the West London Hospital a boy with the eye changes of pemphigus who had a history of blisters on the skin. I have seen the same condition in a baby a year old. There appears to be some doubt about the classification of these juvenile cases, and it may be impossible to settle whether they belong to pemphigus or to dermatitis herpetiformis until we know more about these two diseases. I think it is quite possible that there is a juvenile pemphigus and a juvenile dermatitis herpetiformis, those in which the conjunctiva is affected being probably pemphigus. Regarding zoster involving the ophthalmic division of the fifth nerve—another disease that interests us jointly—I would like to hear how often we are to expect permanent damage to the eye. I would also remind you that the term zoster has been adopted by English dermatologists rather than herpes. The latter is applied only to febrile, catarrhal, or recurrent herpes, a condition which is unrelated, clinically and aetiologically, to zoster. I cannot speak of blepharochalasia, because to the best of my knowledge I have never seen it. The remaining conditions which interest us jointly are of small importance, and they concern dermatology rather than ophthalmology.

Warts and senile warts, which quite often affect the margins of the eyelids, can be treated satisfactorily with the point cautery under local anaesthesia. Miliun bodies can be extracted with a Hagedorn or similar needle. Kromayer advises touching the capsule with the point cautery to prevent recurrences.

Xanthelasma is best treated by a small operation. Kromayer describes one in which the tumour is shelled out (under local anaesthesia) with very little disturbance of the healthy connective tissue, the incised skin being allowed to fall back into place with suturing. I have seen a very good cosmetic result follow this operation by an ophthalmological colleague. Some dermatologists treat xanthelasma by the application of trichloroacetic acid. I have been told that the results are satisfactory, though I have no experience of this method of destroying them.

Hidradenoma of the eyelids is a condition that is probably best left alone.

The first number has been published of a new monthly periodical, *Medicine Today and Tomorrow*, under the editorship of Dr. D. Stark Murray. The publishers are C. A. Watts and Co., Ltd., 5, Johnson's Court, Fleet Street, E.C.4, and the price is 4d. The general aims of the journal, which is the official organ of the Socialist Medical Association, are to record the progress of "planned medicine" throughout the world and to advocate the establishment of a State Medical Service in this country.