Keratoconjunctivitis artefacta

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SUMMARY Six cases of keratoconjunctivitis caused by self-inflicted injury are described. The diagnosis is suggested by the combination of the characteristic sharply delineated lesions localised in the more accessible inferior and nasal quadrants of the bulbar conjunctiva and cornea, together with the unconcerned attitude of the patient and other psychological features. Secondary post-traumatic erosions, infections, and allergies may complicate the clinical appearances, and other functional eye disturbances including corneal anaesthesia may be detected. In all cases the eye condition resolved with a sympathetic but authoritative approach avoiding direct accusation. Avoidance of feelings about bereavement or sexual relationships were directly related to the onset of symptoms in 3 cases. In some patients the psychological mechanism seemed inaccessible and they continued to produce new self-inflicted diseases with considerable physical and psychological morbidity. These more intractable cases need psychiatric investigation but usually resist referral.

Self-inflicted injuries and diseases are widely recognised medical problems¹ which range from innocuous malingering to suicide. Next to self-poisoning, dermatitis artefacta is perhaps the commonest manifestation and has been recognised for over a century.²

Eye injuries may also be self-inflicted and vary from the minor surface irritants applied to the conjunctiva by troops who wish to avoid unpleasant military duties^{3,4} to the severe forms of self-mutilation,⁵ including enucleation of the eye, which occur in schizophrenia and certain psychotic syndromes such as Lesch-Nyhan and Gilles de la Tourette which have underlying biochemical causes. There are, however, few published reports of self-inflicted eye injuries in modern civilian practice, and the condition remains difficult to diagnose.

This paper describes 6 cases which share such characteristic ophthalmological and psychological features that their early recognition can lead to a positive diagnosis. The principles of management which we have found effective are outlined.

Case histories

CASE 1

An 18-year-old office worker had for one year suffered

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recurrent redness of the inferonasal conjunctiva of the left eye associated with punctate epithelial keratitis and a ropey discharge: On referral there was a bizarre square-edged defect in the lower nasal bulbar conjunctiva of the left eye with local injection and mucus debris (Fig. 1). The diagnosis was suspected because of the appearance of the eye and the patient's detached and indifferent attitude. She was warned that some 'unrecognised' mechanical injury was occurring and told of the risk of blindness if it continued. Her symptoms quickly settled, though minor features continued to appear immediately before each return visit. This pattern of relapse before each hospital visit had led her mother to suspect that anxiety might have been provoking her symptoms.

Subsequent interview with a psychotherapist revealed that her ocular disturbance was related to anxiety when she discovered that her fiancé was in hospital for surgery to correct a congenital malformation of the external genitalia. She could not discuss this with him and at interview could not directly mention the part of his body involved. The marriage was later cancelled, and although she was not asked to admit that her eye trouble was self-inflicted she agreed that 'nervous strain' had probably been the main cause. She has had no further eye problems.

CASE 2

An 18-year-old shop assistant had received treatment

Fig. 1. Diagram showing localised distribution of corneal and conjunctival disturbance in the accessible inferior and nasal quadrants of the globe. These areas showed sharply delineated conjunctival injection.

for one year for an irritable and sticky right eye which usually showed a punctate epithelial disturbance of the lower cornea. There was a history of recurrent corneal ulceration in the right eye at 7, 12, and 14 years of age, and superficial corneal opacities remained. She appeared detached and unconcerned about her condition, and the diagnosis was confirmed when on several occasions linear superficial scratch marks were detected inferonasally on the right cornea with adjacent conjunctival injection and diffuse staining with fluorescein (Fig. 1). Corneal sensation was intact. She was firmly told without direct accusation that some unrecognised mechanism seemed to be scratching the surface of her eye and she glibly replied that indeed there had been a hair in her eye the

previous week. The risk to her sight was emphasised and she was warned to take more care. She had no further difficulties, and on subsequent examinations her eye remained undisturbed. The psychological concomitants were not investigated.

CASE 3

A 19-year-old clerkess complained of headache and irritation and watering of the left eye, which she blamed on a foreign body. Antibiotic eye ointment produced allergic blepharitis, but the globe itself showed curiously localised injection and chemosis in the inferonasal quadrant, with a follicular reaction of the lower tarsal conjunctiva. Confluent punctate fluorescein stain was present in the upper and lower nasal quadrants of the cornea. Contact allergies developed to most of the medications used, but even when all treatment was withdrawn the lids and left side of the tip of the nose showed localised erythema and induration. In retrospect it seems that this curious skin distribution resembling herpes zoster of the nasociliary nerve had been inadvertently suggested to the patient during clinical instruction when the features of ocular herpes zoster infection were discussed. The left preauricular and cervical lymph nodes were persistently enlarged and tender. No pathogens were identified on repeated microbiological cultures, and conjunctival scrapings revealed only dense infiltration with neutrophil polymorphonuclear leucocytes. The condition persisted for 9 months, varying in severity but usually showing enough photophobia and lacrimation to make examination difficult.

Self-inflicted disease was suspected when she produced gross erythema of the left side of her face and neck easily identified as a contact allergy. After admission to hospital the condition settled quickly without treatment, though variable and bizarre lesions continued to appear for a few days. She was also found to have functional tunnel vision and reduced sensation not only of the left cornea but also, after some suggestion, the whole of the left side of her body.

Throughout the illness she had remained at work and had always appeared immaculately dressed, unconcerned, and smiling. Her mother later observed that the symptoms always occurred just before her clinic visits. One year before her complaint she had had tingling of the scalp for which a neurologist could find no cause. These combined symptoms dated from the sudden death of an epileptic older sister in dramatic circumstances which might have engendered feelings of guilt in the patient. She agreed that she had shown little external grief and felt that she was in other respects unemotional. She declined help for this.

On final recall to the clinic for review she produced redness and staining of the left nasal conjunctiva with a degree of functional amblyopia.

CASE 4

A 23-year-old nurse presented with mild punctate epithelial staining of the right cornea which she claimed was caused by a splash of acid from a car battery. A large indolent epithelial ulcer developed after a few weeks, and this was usually accompanied by localised injection of the inferonasal bulbar conjunctiva (Fig. 1). The ulcer healed after central tarsorrhaphy but recurred when the lids were later divided. Thereafter the condition was complicated by trichiasis and secondary post-traumatic corneal erosions with intraepithelial microcysts. Throughout 18 months of ocular disturbance she had shown a smiling indifference to her plight, and it had been noted that exacerbations tended to occur immediately before visits to the clinic. Secure healing was maintained after the diagnosis was made and the patient firmly told that unrecognised mechanical injury was causing the problem.

This patient had been on treatment for epileptiform seizures for 3 years, but these seizures were often unconvincing and may have been wholly or partially simulated. Prior to her eye problem she had suffered an indolent ulcer on her heel which healed quickly once encased in plaster-of-Paris. While in hospital with her eye condition artefactual erythema appeared on both forearms. More recently she has been investigated for feigned diarrhoea and rectal bleeding, and new forms of self-inflicted illness continue to appear. She consistently refuses any psychiatric or psychotherapeutic help.

CASE 5

A 32-year-old medical graduate under investigation for haemolytic anaemia developed indolent ulcers of the lower cornea in each eye (Fig. 1). Herpes simplex keratitis was at first suspected, but this diagnosis was probably based erroneously on the appearance of pseudodendritic figures at the edges of the epithelial defects together with reduced corneal sensation. It was later suspected that the lesions were self-inflicted because they healed quickly with the appearance of a fresh conjunctival abrasion at the centre of an area of curiously localised injection of the inferonasal bulbar conjunctiva of the left eye. A detached sheet of conjunctival epithelium, found in the lower fornix and examined histologically, showed no inflammatory response. The patient was warned blandly that some unidentified mechanical agent was causing the problem and that her vision would deteriorate if the cause could not be avoided. Thereafter there were no fresh disturbances in the right eye but in the left eye

episodes of redness and staining of the inferonasal conjunctiva developed shortly before each clinic visit. Her attitude was one of serene indifference and the anaemia was subsequently found to be caused by a self-administered drug. This patient has continued to produce fabricated and self-destructive illness, and 5 years after her eye problem she is housebound and bedridden. Psychiatric interview was arranged but proved futile, as the patient denied any psychological or emotional problem.

CASE 6

A 73-year-old woman attended the outpatient clinic 20 months after successful cataract extraction from each eye. Before and after surgery she had had great difficulty in understanding and accepting her visual disturbance, but on this occasion she complained bitterly of attacks of ocular pain and watering. She sat with her eyes tightly shut and her hands over her face. In histrionic fashion she asked the nurse if the surgeon might see her at once to examine her while the attack was in progress. With sympathetic persuasion she was able to open her eyes to allow examination, and strange, sharply demarcated areas of injection and fluorescein staining of the bulbar conjunctiva could be seen on the nasal quadrants of both eyes. The staining areas were limited to the prominences of the caruncles, plicae, and conjunctiva as shown in Fig. 1. The self-inflicted nature of this problem was suspected at once, and while she calmed down with sympathy and firm reassurance the patient herself asked if it could be related to an emotional upset. She dated the attacks from the sudden death of her only daughter and volunteered that she had not cried after the bereavement, although she felt the loss deeply. She was then told that her symptoms were almost certainly related to her grief and that they would soon disappear. She departed greatly relieved, and on her return a few weeks later she was almost theatrical in the way she described the immediate and miraculous disappearance of her symptoms.

Discussion

All 6 cases show a very similar pattern of disturbance on the surface of the eye with preference for the readily accessible inferior and nasal areas. On some occasions 4 patients (cases 1, 2, 5, 6) showed bizarre scratch marks or sharply delineated abrasions which suggested mechanical trauma. These bizarre lesions in the most readily accessible sites correspond to the patterns seen in dermatitis artefacta. In his Indian army series Somerville-Large⁴ considered the selection of the same conjunctival areas strong enough evidence of self-inflicted injury in sepoys to support a conviction at court martial. These

malingers were in the habit of inserting castor oil or jequirity seeds in the lower fornix when the need arose.

It appears from our observations that mechanical abrasion was the most likely method employed by our patients, but one patient (case 3) skilfully used an unidentified contact allergen to maintain periorbital skin inflammation. The consequent lymphadenopathy confused the diagnosis, and the same patient's suggestibility was revealed by her application of allergen to a remote skin area on the side of the tip of the nose in response to the doctor's expectation of the site of herpes zoster lesions. Secondary disorders also clouded the diagnosis in case 4, where true post-traumatic recurrent erosions and trichiasis following tarsorrhaphy superimposed their own corneal disturbances.

Functional reduction in corneal sensation was present in at least 3 of the patients (cases 3, 4, 5), and its presence does not necessarily indicate primary neuroparalytic keratoconjunctivitis. Furthermore we have found that identification of other functional disorders such as tunnel vision, hemianaesthesia, and functional amblyopia can be valuable in reaching a diagnosis. Indeed an examiner can induce such features by appropriate suggestion. Similarly a medical history of other feigned or self-induced illness has been a feature in our more intractable cases (4 and 5) and may aid diagnosis.

In conjunction with the specific ocular findings summarised above the psychological attitude of the patient to the disease is of cardinal importance in suggesting the diagnosis. Five of our 6 patients showed a happy, unconcerned, and detached attitude to their condition amounting to the belle indifference of the hysterical personality. The other patient's histrionic exaggeration of her complaint (case 6) seemed to represent a much more overt cry for help, with a problem which proved to be much nearer the level of conscious awareness than in our other patients. Cases 4 and 5 had other self-inflicted illnesses resembling the group of patients described by Carney,⁶ but he did not specifically describe eye problems. Bebbington⁷ described 2 patients whose main complaint was eye pain, but this was considered hypochondriacal rather than self-inflicted.

In all cases we have been able to stop the ocular injury by using an approach, advocated by others,^{1,8,9} which indicates to the patient indirectly with sympathetic authority that the cause of the condition has been unrecognised and unsuspected injury. It is important to maintain the confidence between patient and doctor, and direct accusation serves no purpose other than to drive the patient away to another hospital or another self-inflicted disease. With sympathy, reassurance, and support it is often

possible to invoke clinical transference, so that the physician's attention becomes the sole aim of the fabricated clinical features. This can be used constructively if the doctor does not become pejorative. In 4 of our patients (cases 1, 3, 4, 5) attacks eventually occurred only before visits to the physician, and by increasing the time between visits it has proved possible to reduce the frequency of attacks, allowing the patient to be discharged with the reassurance that the problem is resolving. This can only be successful if the patient's confidence in the authority of the doctor is maintained and the doctor can demonstrate an ability to set limits on undue demands. Allowing the patient to determine too lengthy or too frequent interviews becomes counterproductive. When delay or uncertainty in reaching a diagnosis has compromised the credibility of the physician, it may be preferable to pass the case to a colleague who has been forewarned and who is introduced as an expert in the field.

Uncovering a causative psychological mechanism may be more difficult than controlling the ocular disturbance, but in cases 1, 2, and 6 it appeared that the symptoms started at times of internal conflict related to unconscious guilt or repression of feelings about bereavement or sexual relationships. These patients tend to resist conventional psychiatric referral. In the first instance we prefer to maintain the direct link between ophthalmologist and patient and probe for a possible source of stress or anxiety by suggesting that eye disease, like other illnesses, may be provoked by psychological factors. By means of the simple face-saving analogy of stress and stomach ulcers this line of inquiry can be introduced, and in our cases this has been the most effective method of revealing possible psychological factors. In the 3 cases in which we uncovered such mechanisms the patients themselves agreed that 'anxiety' was indeed the likely cause of their eye problems. In all cases, especially where there is bereavement, the patient should be asked about depressive features, and if these are present, should be referred to a psychiatrist. Cases 4 and 5 had much deeper psychological disturbances which proved inaccessible to our form of amateur psychotherapy, and although the ocular damage has ceased they continue to produce self-inflicted diseases. Such cases should be tactfully offered psychiatric referral. Some of these patients may be destined for prolonged physical and psychological morbidity, and often a change in the patient's social or personal relationships is the only effective cure.¹⁰

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