We were fortunate in having the co-operation of the Medical Superintendent of Hope Hospital, so that a small ward was set aside for squint operations. All the children in the ward had their operations on the same morning and were more content to submit to the necessary discipline, as they were all at the same stage of treatment. The squint ward had the additional advantage of permitting us to keep a child with a residual angle for a second operation where necessary—a procedure not always possible in a hospital with a limited number of beds and a large number of acute cases requiring admission.

Summary

1. The result of operative treatment for convergent concomitant squint in 100 cases unsuitable for orthoptic treatment alone is described.

2. Ninety-two of the cases were rendered approximately straight by operation and orthoptics.

3. One patient considered to be a case of psychological squint was unimproved with repeated operation.

4. Of the seven remaining relatively unsatisfactory cases, it is likely that most would have responded to further operation.

5. Of 45 treatment cases with binocular vision at the angle of squint, 33 satisfied the conditions of cure according to the proposed standard of the British Orthoptic Association.

6. Greater co-operation of the parents in allowing a further operation in cases with a residual angle and in bringing the children for post-operative orthoptic treatment would have reduced the number of patients classed as failures from the point of view of normal binocular vision.

A SIMPLIFIED EXTERNAL DACRYOCYSTORHINOSTOMY *

BY

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and

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IN operations designed to establish a short circuit between the lacrimal sac and the nasal cavity, the main efforts have been directed towards establishment of an opening between the two which will not cicatrize and become stenosed. To this end, flaps from the mucuous membrane lining the sac, the nose, or both have

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been utilised and a variety of procedures used to keep them in position. Provided the necessary fine instruments are available for suturing the flaps, these techniques are successful, but when these cannot be used, which is usually the case in a Military Hospital working under active service conditions, a more simplified method is demanded. It may also be that the actual suturing of the mucous membrane is a contributory factor in producing stenosis.

The following is a brief account of a technique which was performed in six cases of dacryocystitis with stenosis of the naso-lacrymal duct. All the patients were negro soldiers, and X-ray photographs taken after the injection of lipiodol into the lacrymal sac *via* the inferior punctum showed stenosis of the naso-lacrymal duct in all. All complained of epiphora and recurrent conjunctivitis. Conservative treatment by means of lavage of the lacrymal sac failed to cure them. The length of history varied between two and four months in five cases, and in one, over twelve months. This case had a fibrotic sac with a small fundus and thickened mucous membrane.

Technique

Exposure of the lacrymal fossa is made by means of a semi-lunar incision, the convexity medial, about $\frac{1}{2}$ — $\frac{3}{4}$ inch long with the centre $\frac{1}{8}$ inch medial to the inner canthus. The median palpebral ligament is divided and the anterior lacrymal crest defined. The medial aspect of the sac is separated from the bony fossa and carefully retracted laterally. An aperture is made with chisels about $\frac{1}{2}$ inch by $\frac{1}{3}$ or even larger in the bony nasal wall, the long axis vertical. This opening is so cut that it lies directly opposite the medial, and not the postero-medial, aspect of the sac fundus. In order to attain this, some of the frontal process of the maxillary bone must be removed, as well as the anterior third of the lacrymal bone. This opening lies in the anterior end of the middle meatus of the nose, the extreme anterior end of the middle turbinate being medial to it. The muco-periosteum of the nose adjoining the opening is removed, no attempt being made to form it into a flap. As large a semi-circular incision as possible is then made in the medial surface of the lacrymal sac, hinged posteriorly, and this flap is turned back to lie over the posterior lip of the opening into the nose.

A piece of rubber tube (the bore approximating as nearly as possible to that of the nasal opening) is taken, and a length of silk-worm gut threaded into one end, by means of a straight needle. The free ends of the silk-worm gut are tied together and the knot passed through the incision and nasal opening into the nasal cavity. The silk-worm gut can now be easily found under the anterior part of middle turbinate by a pair of angular nasal dressing forceps passed up through the nostril, and drawn down, with the rubber

tubing attached, through the anterior nares. The tube must be of such size as to pass through the nasal opening with slight traction, and its upper free end is manipulated to lie in such a way that it projects from the nasal opening into the lacrymal fossa and sac for about three millimetres. In doing so, it serves to keep the flap of tissue from the sac in position as the posterior lip of the newly formed lacrymo-nasal communication. The lower end of the tube, with silk worm gut attached, is cut off flush with the nostril and held in place by means of a strapping dressing until the patient has recovered from the effects of anaesthesia.

The medial palpebral ligament is then repaired by means of a single silk suture (0) and this approximates the anterior cut surface of the lacrymal opening to the anterior lip of the nasal aperture over the rubber tubing—the silk suture passes first through the skin from the lateral side and next through the portion of the incised ligament. The medial cut end, on the anterior lacrymal crest, is next taken in the suture and finally the skin on the medial side. Other sutures (silk) are needed to close the wound completely.

Although the lacrymal sac does not lie in immediate relation to this ligament, it is attached by fibrous expansion and great care must therefore be taken not to expose the anterior aspect of the sac when separating the fundus from the medial wall of the lacrymal fossa.

The post operative treatment consists in one daily syringing through the lower punctum for seven days, after which interval the sutures are removed (this might be done sooner in temperate climates—the present series was done in the tropics where too early removal of sutures often results in breakdown of the wound with secondary sepsis and gaping).

The rubber tubing is not touched until the seventh day, when it is gently removed.

In a country where secondary sepsis is the rule rather than the exception, it was remarkable that healing of the external wound by first intention took place in every case. The skin and subcutaneous tissues in this region seem capable of resisting infection to a marked degree. No nasal complications occurred.

In the six cases operated upon by this method, the immediate results were successful in all but one, mentioned above. In this case no flap of reasonable size could be procured. It is now realised that this type of case should not be subjected to dacryocysto-rhinostomy, at least by this method.

Only two of the cases were examined one month and two months after operation and were free from symptoms. Later results were unfortunately not observed since the patients were soldiers on active service and not available for examination.

The value of pre-operative lipiodol X-ray examination is stressed, as it is important to gain as much information as possible on the

size of the fundus, especially if there has been a previous history of acute inflammation. A preliminary examination of the nasal passages is advisable and if necessary any obstruction due to deflection of the septum should be corrected.

Summary

This describes a simple method of keeping a graft from the lacrymal sac in position in external dacryocystorhinostomy and requires the use of no special instruments other than those provided in the equipment of a Military Hospital.

The use of rubber tubing is introduced to do this (tube drainage of the frontal sinus into the nose is a common procedure and suggested its employment in these cases).

Dacryocystitis, although not a dangerous condition, can cause much inconvenience and any treatment which can alleviate its symptoms has a useful place in surgical procedures, particularly if of a simple nature and requiring no special equipment.

A CASE OF CORPORA NIGRA WITH ANTERIOR SYNECHIA*

BY

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A MAN aged 25 years was recently seen at this hospital; he had never noticed anything strange about his eyes until he complained of dazzling of the left eye in bright sunlight.

He shows in both irides large flocculi or corpora nigra, more marked in the left eye than the right. They are larger on the upper border than the lower, and are not seen along the nasal and temporal sides, following the usual arrangement (Stahli). The especial feature of this case is that one of the upper corpora nigra in the left eye is attached to the back of the cornea. I have been unable to find any reference to this condition in the literature or on personal enquiry, and, subject to correction, believe it to be unique. The flocculus appears to be truly attached to the cornea, not merely lying against it, over a flattened area of some two millimetres diameter, whose position and size remain constant whether the pupil is normal or dilated. The flocculus gives the impression also of being slightly stretched. Near its corneal end it is bifurcated, but the end itself is single. There is no loose pigment in the anterior chamber, which is clear and of normal depth.

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