

considered that a myopic eye is better off after operation if it then requires for correction a + lens which is not higher than the - lens needed for the original myopia. Schweigger thought that an eye should not be operated on if a higher + lens than 4 is likely to be required afterwards.

I have operated at all ages. 10 operations were performed on patients between the ages of eight and 15 years—namely, one at eight years, two at 10 years, two at 11 years, one at 12 years, one at 13 years, two at 14 years, and one at 15 years; in 32 operations the patients were between the ages of 16 and 33 years; and both eyes were operated on in patients aged 41 years, 60 years, and 64 years respectively. Children are rarely very myopic, but if the defect is obviously progressive the operation should be undertaken, particularly as simple discission will probably suffice if it is done sufficiently early in life. Table II., however, shows

TABLE VI.—Showing the Average Improvement in Visual Acuity after Removal of Lens in Four Groups of Cases, that Before Operation being assumed as = 1.

Refraction before operation.	I.	II.	III.	IV.
-10 D.	—	1.37	1.13	3
-11 D.	—	1.4	1.2	—
-12 D.	1	1.38	1.25	—
-13 D.	1.5	1.25	1.25	4.5
-14 D.	1.75	1.625	1.28	3
-15 D.	—	1.76	1.225	3
-16 D.	1.8	1.45	1.26	3.5
-17 D.	1.1	—	1.175	—
-18 D.	2.4	2.05	1.175	2.53
-19 D.	—	2	1.4	—
-20 D.	3	2.18	—	4
-22 D.	1.8	—	1	2

Group IV. shows the best average results that I can find claimed by any operator, but the improvement is said to reach seven- or even ten-fold in individual cases; in these probably the vision before operation was very defective or unreliable.

that a considerable number of young patients have myopia of 10 D. and upwards. The cases most likely to apply for help are young adults who are disabled from getting situations either because they wear spectacles or cannot satisfactorily do their work with or without them. I have invariably operated on the patient's worst eye. I consider that the rule should be to operate on one eye only and that the best eye should be left untouched for purposes of reading. If the myopia before operation is of such degree that the aphakic eyes are likely to show any myopia or a very slight degree of hypermetropia after operation it might be well to operate on both. In most cases a convex lens of high power is necessary for reading small print after the operation and patients prefer to use the eye that has not been interfered with. They use the operated eye for distant sight and the other for reading, and thus altogether get rid of spectacles which they dislike to use for either purpose. The period of 10 years or so during which the operation has been under trial is not long enough for us fully to calculate the risk of complications that may follow it, and it seems to be seldom justifiable to risk both eyes. I should be very cautious about operating on a patient with only one eye—it might be justifiable, but it is rarely so. Most cases of severe short sight would seem to be suitable for operation. Well-to-do people can manage comparatively well with high short sight, but in the case of servants and workmen it may mean want of employment. I append the results of 48 cases in which I do not regret interference in a single one (Table IV.); the list may not be quite complete in number, but certainly no unfavourable case has been excluded, for such were most carefully watched and noted. Those in which any definite complications occurred are specially mentioned; a few had very severe inflammation but ultimately recovered with good vision. There is plenty of positive evidence that we have done good and very little that we are doing harm. There can be no doubt as to the improvement in vision and with it in the general aspect of the patient, who loses his nervous, dreamy manner in one of confidence and interest in what is around him.

Evidence as to the exact amount of improvement in distant

vision is somewhat conflicting. A comparison drawn between the best vision of the patient with glasses before operation and his best corrected vision after operation is said by Fukala, von Hippel, and others often to show an increase of four-, six-, or even ten-fold. Sattler finds the improvement much less marked and usually not greater than would be accounted for by the increased size of the retinal images. In Table VI. we have shown some statistical evidence upon this point. Allowing for the difficulty the patient finds in wearing the best correcting lenses and his distinct preference for wearing none at all the gain to him would appear to be much greater than that expressed in the figures. As a rule we do not gain improvement in vision for reading, but we certainly do so in a few instances. Thier has quoted a series of cases in which myopic eyes which had been rendered aphakic by operation seemed to possess a very considerable range for reading. Having corrected the eyes with convex lenses which enabled each to see comfortably moderate-sized print, such as Jaeger 6 or 8, he found there existed a range of vision which varied from 21 centimetres to 63 centimetres, the nearest point at which the print was read in any case in the series being 7 centimetres and the furthest 75, and Fukala says that he can corroborate these observations. The explanation of this phenomenon probably depends on the fact that at a considerable distance both within and without the point of clearest vision the image is less indistinct than would be the case in the eye of normal length on account of the diffusion circles being smaller and less marked, while in addition myopes are accustomed to see with considerable blurring of the retinal images. The power of real accommodation in aphakic eyes which has been attributed to pressure of the external muscles either increasing the corneal curvature or lengthening the antero-posterior axis of the eyeball is probably very slight and of no real importance.

NOTE ON SOME OF THE SURGICAL SEQUELÆ OF INFLUENZA.

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EVERYONE must have noticed among the manifold consequences of an attack of influenza the tendency to rouse into activity latent or quiescent disease. It reveals the vulnerable or weak parts in the individual attacked and thus gives rise to a great variety of sequelæ. Of those which come under the notice of the surgeon the most frequently seen are inflammation and suppuration of the lymphatic glands; inflammation of the mucous membrane of the throat and of the nasal, maxillary, and frontal sinuses; suppuration of the middle-ear; synovitis; boils; neuralgias; and residual abscesses.

In children with susceptible lymphatic glands acute suppuration may be set up in glands which have long been in a condition of chronic and indolent enlargement, or there may be swelling and tenderness of a number of glands in different parts of the body, subsiding after a few days without suppuration but perhaps leaving two or three glands chronically enlarged. In adults, glands which have long before been the seat of suppuration may become swollen and tender with a good deal of oedema of the surrounding connective tissue, but suppuration is less common.

The pharyngitis accompanying and following influenza is characterised by general redness and vascularity of the mucous membrane with a good deal of submucous swelling. This condition frequently spreads to the larynx, causing troublesome cough. Sometimes, though less often, it affects the maxillary and frontal sinuses and may lead to suppuration within these cavities.

Persistent neuralgic pain about the upper jaw and neighbouring parts occurring after an attack of influenza should lead to a careful examination of the antrum, for the pain may be found to depend upon the presence of pus in that cavity and will be cured, not by quinine, but by evacuation and drainage. The rhinitis is of the same character—there is redness of the nasal membrane, submucous swelling, and much muco-purulent secretion. This condition is often very persistent and will recur with each attack of influenza even

when there is complete subsidence in the intervals. The laryngitis is usually less severe and more transient.

Suppuration of the middle-ear has been very common in the late epidemics and frequently occurs early in the attack, but in some instances it follows the chronic throat affection and arises during convalescence. The suppuration may, of course, spread to the mastoid cells or lead to some of the more serious complications of this condition, such as cerebral abscess or pyæmia.

If the victim of influenza has an arthritic tendency synovitis is likely to occur. In the cases which I have seen the joint has usually become swollen after the subsidence of the initial fever. In some the temperature has risen slightly coincidentally with the synovial effusion and the joint has been painful; in others there has been no rise of temperature and very little pain, though the effusion has often been considerable and persistent. Occasionally, but happily rarely, suppuration occurs. This possibility should, however, be borne in mind in considering the advisability of operations upon joints during an epidemic of influenza.

Very notable is the tendency of influenza to provoke into activity quiescent tuberculous or other chronic forms of joint disease. It frequently starts again the whole process which had seemed to have come to a happy end. I have recently seen a child who after years of treatment had apparently just recovered satisfactorily from an extremely chronic form of hip disease, and in whom disease of the knee of a precisely similar character came on while the patient was in bed in consequence of an attack of influenza which prevailed throughout the house. This was the more striking because the child was in good health and showed no sign of tubercle, and, being in bed, was of course not even using the limb. So far as my experience goes the joints of the lower extremity are the most commonly attacked, especially the knee, and next in order come the elbow and wrist.

A succession of boils may follow influenza in those liable to this complaint. Whether accidentally or not I do not know, but I have seen several instances in which the boils have been chiefly upon the face.

Various forms of neuralgia have been very prevalent among the sequelæ of influenza. Facial neuralgia may, as I have pointed out, depend upon the presence of pus in the antrum or neighbouring sinuses or may, of course, be determined by the presence of a diseased tooth. But I have also seen severe cases of occipital, sciatic, and circumflex neuralgia after influenza for which no local cause could be discovered.

Residual inflammatory products may be aroused into fresh activity by influenza, as may be especially seen in the case of ischio-rectal abscess.

But one of the most remarkable effects of influenza and one to which I wish especially to direct attention is the active recrudescence of latent or quiescent syphilis. In this, as in some other points, influenza curiously resembles malarial fever, which has a notable power of bringing out some of the later symptoms of syphilis and making manifest any remaining syphilitic taint. A striking instance of the lighting up of smouldering syphilis by influenza was seen in a patient under my care in St. George's Hospital in 1895. A woman, 42 years of age, had been infected by her husband 18 years previously. She was an intelligent person, was aware of the nature of the disease, and gave a very clear history of her symptoms. She had a primary chancre on the vulva, followed by well-marked secondary symptoms lasting for a year and a half. During this time she was under constant treatment. For the next year she remained free from symptoms, but during the succeeding year she again suffered from ulceration of the throat and skin, for which she was treated. After this she remained well, or at least could remember no noticeable symptoms, until a recent attack of influenza, during which rupial bullæ appeared over the body and developed into numerous and extensive ulcers. She was now admitted into the hospital with rupial bullæ and ulcers in various stages; at the same time her hair fell off so that she became almost entirely bald, and her complexion underwent a very noticeable change from the pallor of anæmia to a dull bistre tint. Then ulceration of the soft palate occurred leading to an extensive perforation; a large periosteal node formed over the back of the radius and subsequently she had ulcers between the toes. Under a mild course of calomel baths, iodides, and tonics, together with a generous diet, she made a slow but satisfactory recovery, the change in the complexion as her general condition improved being most striking. The recurrence in this case was of unusual severity, but in others which I have observed there

has seemed to be an especial tendency to the occurrence of ulcerative conditions.

In addition to whatever local treatment may be needed by these various sequelæ of influenza, tonics, fresh air, sunshine, and a generous diet will be found important aids to recovery. The tendency to ulceration and to the breaking down and necrosis of inflammatory products are indications of lowered vitality and should be borne in mind in reference to the treatment. Evidence of suppuration, especially in glands and in the maxillary sinuses, should be carefully watched for, so that matter may be given an exit at the earliest possible opportunity. In the cases of recrudescent syphilis in which rupial ulcers or the breaking down of gummata of the skin occur the calomel vapour-bath will be found most efficacious. That a patient has recently suffered from influenza is certainly no reason for abstaining from the administration of mercury, which in the cases alluded to is always of the greatest benefit. Indeed, I am convinced that however remote the original infection may have been nearly every case of syphilis in which fresh symptoms are developed will benefit by the administration of mercury; and it seems to me that the calomel bath has fallen into undeserved neglect. In several instances the good effect of the calomel bath appeared to be materially aided by the administration of the freshly made decoction of sarsaparilla.

Savile-row, W.

A CASE OF STRÜMPPELL'S PARALYSIS (POLIO-ENCEPHALITIS) COMBINED WITH INFANTILE PARALYSIS.

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THE point of interest in the following case is that the lesion was a double one and involved the neurons of both the upper and lower motor segments.

The patient was a girl, aged 11 years, who had been paralysed for six years. Her mother said that the girl came home from school complaining of severe pain in the head over the left temporal region. She had a convulsion and afterwards the face was drawn to the left side and there was loss of speech with paralysis of the right arm and the leg. The facial paralysis gradually got better and the power of speech returned in about 14 months from the onset of the disease. The child at the time of the seizure was in apparently good health and there was no history of any infectious disease or of rheumatism or chorea. There were no signs of congenital syphilis. She attended school but learned very slowly and was very forgetful. On admission to the Bristol Hospital for Sick Children under the care of Dr. Leonard Lees, to whom I am indebted for permission to publish this case, her right arm was found to be in a spastic condition, with the elbow and wrist more or less flexed and the fingers flexed or extended and rigid, all movements being slow, incomplete, and usually tremulous. The right arm measured a quarter of an inch more than the left, the increase probably being due to the constant choreiform movements. The electrical reactions were normal. The heart and lungs were healthy. In the lower limbs the right leg measured one inch less than the left. There was pes cavus for which tenotomy was performed in 1898 at the Bristol General Hospital. The electrical reactions of the flexors seemed normal, but the peronei gave the reaction of degeneration. Knee-jerks were present. It was evident that the lesion was one of the upper motor segment. The grounds on which I based this conclusion were (1) that the lesion was a hemiplegia, (2) that speech and the facial muscles were affected at the onset, (3) that there was no reaction of degeneration in the upper limb, and (4) that the reflexes were not lost. One point against the whole lesion being of that nature is the fact that the leg had wasted and the reaction of degeneration could be got in some of the muscles. It was therefore certain that the lesion was double—i.e., that there was a lower segment lesion (anterior polio-myelitis) as well as an upper segment lesion, which might be an associated polio-encephalitis.

Hemiplegia in children may be due: (1) to porencephaly, or congenital deficiency of cortex or subcortical region; (2) to injury, instrumental or otherwise, at birth; (3) to