indeed rather worse. I then hesitated between advising suggestion treatment and injection of the Gasserian ganglion. He would not have the former, and, again against my better judgement, I injected him, this time through the foramen ovale, producing total and permanent fifth nerve anaesthesia. His eye and cornea fortunately gave no trouble, but he was now even more complaining of the pain, and he therefore went to see a surgeon regarding gasserectomy, who, however, refused to do the operation when he found the fifth nerve area totally anaesthetic. Baulked in this, he went to yet another surgeon, who operated to remove his ganglion; but the last I heard of him was that he was complaining even more of pain.

The moral of this tale is that it is unwise to attempt any form of surgical treatment for psychalgias, the pain is apt to get worse, or spread to another area, and once an operation has been performed, it is most difficult for another practitioner to sift the real from the false and to make a diagnosis.

A CASE OF PYOCELE OF THE FRONTAL SINUS.

BY

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On May 18th, 1921, I was asked by Mr. Potts, ophthalmic surgeon to this hospital, to examine a patient, a married woman, aged 57, for frontal sinusitis. She had a slight swelling at the inner canthus of the left eye, and complained of some "pricking in the left eye," but not of headache or any other subjective symptom.

The swelling was firm and could not be pressed away. Intranasal examination showed no discharge on either side; the mucous membrane was quite normal in appearance and there was no enlargement of the turbinate bones. The post-nasal space was also quite clear of any discharge. Transillumination showed both frontal sinuses clear and of about normal size; the maxillary antrum was also clear; there was no history of a blow. My report was that the frontal ethmoid and maxillary sinuses were unaffected.

Three months after this the patient was admitted into hospital with a compressible swelling on the left frontal sinus. The house-surgeon, Mr. Reed Hill, needled it and got pus. There were no subjective symptoms such as headache, etc.; the temperature was negligible. The eyeball was pushed downwards and outwards, with swelling of the soft tissues of the upper eyelid and inner angle of the orbit.

Operation.

I operated as soon as the patient could be got ready, making an incision along the eyebrow; there was an immediate gush of odourless reddish muco-pus. A gloved finger was inserted into the cavity, which was felt to be unusually large. I therefore made a further incision at right angles to the original at its inner angle, going well up the forehead; the flap was turned upwards, the cavity swabbed dry, and all bleeding arrested.

It was then made clear that the anterior wall of the frontal sinus, with the exception of a thin pliable piece of bone adherent to the flap, was absorbed. The floor (except for a small plate of bone over the orbit), the posterior wall, and the septum between the two sinuses were also absorbed, so that the right frontal sinus could easily be explored. Portions of dura mater were missing, and brain substance, looking red and inflamed, was exposed. A probe could be passed on either side into the nose; the posterior ethmoid cells were absorbed. The fronto-nasal duct could not be made out, and the probe could be passed down to the loop of the post-nasal space, the mucoperiosteum everywhere being intact, except where the orbital plate had been absorbed; here the probe passed into the cheek. The sagittal sinus was intact, but the whole of the left frontal lobe of the brain was completely exposed and, if it had been desirable, could have been raised and its under surface explored. The wound was sutured with the exception of its outer and inner angles, which were drained.

Recovery was gradual, and the temperature and pulse negligible throughout until, at the end of three weeks, a pocket of pus, quite different from the original infection, formed under the scalp at the inner angle of the original incision and extended down to the cheek. This was opened, gently scraped, and swabbed out with hypochlorite solution. The patient is now quite well.

I deemed it unnecessary and inadvisable to open up any communication with the nasal cavities, as I felt that the cavity would in all probability become filled with fibrous tissue.

The case was shown at the local Branch of the British Medical Association, and I expressed the opinion then that the condition was a mucocele of the frontal sinus which

had become infected. The recent Hunterian Lecture by Mr. Howarth, published in the *Lancet* of October 8th, has impressed me with the fact that the condition is not as uncommon as I at first deemed it to be; nevertheless the publication of this case may be of some interest.

The following details of the eye condition, as recorded by Mr. Potts, were supplied to me by Mr. Reed Hill:

The patient attended hospital on May 14th, complaining of slight discomfort behind the left eye. On examination, R. vision = 6/6, L. vision = 6/12, no hypermetropia; a small swelling was felt below the left supraorbital notch; some slight proptosis was present, and displacement of eye downwards and outwards, but no diplopia. Examination of the fundus revealed no pathological changes.

On re-examination four months later, the eye was observed to have returned practically to its normal position. The proptosis had disappeared, and there was very slight displacement of the eye downwards, the level of the left pupil being about two millimetres below that of the right. Fundus, optic disc and media were quite normal. It was found that the patient had an error of refraction which when corrected gave R.V. ± 1.25 D cyl. axis vert. = 6/6; L.V. ± 1.25 D cyl. axis $\angle 70^\circ = 6/9$. On testing for heterophoria the left image was found to be situated above and to the right of the right image, but they were approximately fused by a 12 Δ prism base upwards and inwards.

The extrinsic muscles appeared not to have been affected, as there was no limitation of movement of the eye. The fields showed no contraction, nor were there any scotomata to be made out with either white or colours.

SUTURE OF SEVERED MEDIAN NERVE, WITH RAPID RECOVERY OF FUNCTION.

BY

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A boy, aged 14, on May 28th, 1921, thrust his arm through a window pane, severing the internal and part of the external belly of the biceps and coraco-brachialis muscles, the brachial artery and vein, and the internal cutaneous and median nerves. First aid was luckily at hand, a tourniquet was applied and the boy sent to the hospital.

Examination of function revealed complete loss of power in all the muscles, and loss of epicritic, protopathic and deep sensibility in the area supplied by the median nerve. The latter was severed *en bec de flûte* without irregular tags.

I ligatured the brachial artery and vein and freed the median nerve at the proximal and distal ends. By means of a fine suture of chromicized catgut exact adaptation of the ends was aimed at, with the view of bringing each proximal fibre in contact with its own distal fibre, as far as could be expected. This was obtained by rotating the ends of the divided nerve on their axes. A zigzag suture of catgut was then introduced all round the nerve, taking into each stitch-loop only the sheath, and no nerve tissue, and in such a manner that all the longitudinal threads lay on the outer surface of the nerve like a tube. For this purpose the sheath was transfixed twice at each bend of the gut, in a transverse direction, thereby minimizing the danger of cutting through.

Through the retraction of the sheath, which ensues in such cases, the protruding nerve fibres tended to slip out from between the bars of this cylindrical fence of catgut, and had to be pushed back with a probe. I did not find this method of suturing difficult, nor did it take much time. I believe that the non-inclusion of nerve tissue in the stitch and in the complete retention of the prolapsing fibres by numerous threads of catgut all round, which at the same time secured accurate adaptability of the ends, may have a lot to do with the rapid restoration of function.

A glove drain was left in the depth of the wound, the arm put up in a flexed position and at complete rest on a pillow. Healing was uneventful.

Two days after the operation I was surprised to find that the patient showed distinct improvement in some of the movements controlled by the median nerve, as, for instance, better flexion at the wrist, much better pronation of the forearm, less impairment of opposition of the thumb, and less difficulty in abduction of the thumb. There was, however, still inability to flex the terminal phalanges of thumb and index finger.

At the end of six weeks there was almost complete return of normal muscle power, the grip remaining somewhat weak. Sensation showed little improvement. For