able injury to the underlying cortex cerebri. This was carried out by my colleague, Mr. Pearce Gould, on July 8th. A large trephine opening was made at the seat of the cicatrix. The portion of bone removed was perfectly normal, and so was the dura mater underneath. A circular portion of this was also excised, when the exposed cortex was seen to be apparently healthy. At my request, Mr. Gould then explored in three or four different directions the cerebral substance, for about an inch in depth. This was done as an exploratory measure, so as to exclude the possibility of an abscess, cyst, or tumour being in the neighbourhood. Nothing abnormal, however, was detected. The wound was then closed, and the subsequent surgical treatment was conducted by Mr. Gould, to whose skill and attention the further successful progress of the case is undoubtedly due. The man recovered without a bad symptom.

On July 20th, the patient again came under my care, his wound having completely healed. He had not had any attack, and, with the exception of being pale and weak, was in good health. A few weeks afterwards he was sent to a convalescent hospital.

On December 8th—that is, exactly five months after the operation—the patient was in perfect health. For some time past, he had been at his work, and earning his living as before the accident. He has had no attack of any kind. Physically and mentally, he appeared to be in a sound and robust condition.

Commentary.—In this briefly recorded case, two points seem worthy of comment: 1. The result of the operation on the symptoms. 2. The nature of the epileptic attacks.

1. Any special surgical features of interest I leave Mr. Gould to relate. To the physician, the fact of importance is, that violent and frequently repeated epileptic seizures, which had existed for six years, were completely arrested by the surgical manipulations described, on the area which was presumably the original seat of the cortical irritation, although nothing abnormal could be detected there. I will not speculate upon the explanation of this result, but content myself with recording the fact. Such effects are by no means unknown, although the proceeding to obtain them is rarely put into practice. In cases in which a local aura can be traced, and which resist ordinary medical remedies, might not this method of surgical treatment be more frequently resorted to? The danger from the operation itself is, under suitable precautions, probably not great, and this instance shows that a hope of recovery is offered in what seemed otherwise to have been an incurable case.

2. The attack was usually preceded by a bright red flash of light, and it was followed by what were apparently visual hallucinations of different objects. The cicatrix on the scalp and the subsequent trephining were situated over that region which corresponds with the angular gyrus. These facts seem to me to be of great scientific interest, showing that interference with the function of this convolution induces subjective sensations of light and possibly also of things. Physiological experiment seems to have demonstrated that this gyrus has close relations to the sense of sight, and to the appreciation of external objects. The sensation of light at the beginning of the attack in this case might therefore be explained by the initiating irritation of the cortical visual centre. It is possible also that the mania following the fit, which appeared to be accompanied by visual hallucinations, may have been associated with some functional disturbance of this convolution. After an epileptic seizure, the effects of exhaustion rather than irritation of the cerebral centres would have been anticipated, and how far hallucinations are the result of diminished functional activity is, I suppose, an uncertain question. These might at least be assumed to be the result of irregular or disordered activity, which in its turn might be the product of debility or exhaustion. Both the initiating sensation of light, and the concluding appearance of images, were induced by the same cause, acting on the same centre, namely, the effects of a blow over the angular gyrus, and both were removed by measures directed towards this locality. The patient, in his usual inter-paroxysmal state, had normal vision, and no opportunity was afforded me of ascertaining the condition of his sight immediately after the attacks, with the view of determining if temporary amblyopia existed. An exploding lesion of the angular gyrus might theoretically induce this effect. Singularly enough, since his recovery the patient has forgotten all about either the lights or the hallucinations, and is now unable to recall their nature, although formerly he described them with some accuracy.

In my other case, where a tumour was removed from the Rolandic fissure, I observed somewhat similar phenomena as in the present instance, that is, the presence of subjective visual hallucinations. After death the angular gyrus was found to have been partially injured.

REMARKS BY MR. GOULD.—The operation was performed with the usual antiseptic precautions; the entire head was shaved on the day preceding the operation, then well-washed, first with soft soap and then with carbolic acid lotion (5 per cent.), and a cap of wool, soaked in this lotion, was worn for several hours. Immediately before the operation the scalp was again well washed, and on its completion the wound was well irrigated with corrosive sublimate solution, 1 in 2,000, and dressed with Salalembroth wool. The wound in the scalp was united by gut sutures, a drainage tube being placed in the most dependent part. The tube was removed on July 9th (the day following the operation), and the wound was next dressed on July 15th, when it was found to be firmly healed, except where the tube had been, and there it was beginning to epitheliate. Morphine (¼ grain) was injected under the skin before the anæsthetic was administered.

The scar of the injury was devoid of special features—it was not adherent to the skull, neither painful nor tender. No change could be observed in the bone, either before or at the operation. The exposed dura mater showed three small specks of a yellow colour; the circle that was removed was free from arachnoid adhesions, and its deep surface was perfectly normal in appearance. The brain itself was explored by the introduction of a fine knife, and then of a director, and subsequently by puncture with a hypodermic syringe in four directions. Nothing was observed which seemed to explain the mode of production of the epileptic attacks, nor the beneficial results of the operation. The convalescence of the patient was uninterrupted; there has been no tendency to hernia cerebri, and the covering of the brain is firm.

SURGICAL MEMORANDA.

MIRRORS FOR OPHTHALMIC AND OTHER OPERATIONS.

IN England, during the winter months, the usual daylight is frequently not sufficient for ophthalmic and other operations, nor are operations confined to the few hours during which daylight is present. When operations are performed under such disadvantages, the use of a large concave mirror, of eight or more inches focus, placed upon the brow, will be found of great service. By its means the operator may use artificial light of weak intensity to greater advantage, and regulate its degree and position in a manner he cannot otherwise do.

By using a mirror with two apertures, the ametrope may arrange the lenses he requires behind the mirror; so that he avoids creating the silly impression which sometimes possesses the patient, that anyone requiring lenses to operate by is not so reliable as one who can act without them. Presbyops may find this especially useful. A parallelogram form of mirror is, for this purpose, probably better than the round.

W. LAIDLAW PURVES, Stratford Place, W.

THE IMMEDIATE TREATMENT OF WOUNDS OF THE FACE.

IT has been said by a writer of distinction that the chippings of Phidias were better than the fine work of inferior sculptors. Not to press a metaphor too far, we may at least confess that we gladly accept from the magnates of surgical art stray hints on the management of common accidents, which every one is supposed to know.

On the afternoon of June 19, 1886, a boy at the Bath College was hit by a cricket-ball on the face, which was severely cut. The wound was as neat and clean as if done by a knife, transverse in direction, and parallel with the circumferential fibres of the orbicularis muscle below the right eye. The bleeding had nearly stopped when the boy was brought to my house, and there was little or no contusion around the wound.

Now, I had read a little while before (*Edinburgh Medical Journal*, December, 1885) a suggestion by Professor John Chiene on the treatment of wounds of the face. "The best stitch to use," he says, "is horse-hair. The best dressing is a pad of salicylic cotton-wool, fixed in position with flexile collodion." Surely the ideal of cleanliness and simplicity! Dr. Chiene's directions were literally and carefully carried out in the case of my own patient, and with perfect success. Only one stitch was necessary; the wool protected the injured part from organic harm, and the collodion kept everything in position. The dressing came off within ten days; the healing process was completed, and there was hardly any scar.

JOHN KENT SPENDER, M.D.Lond., Bath.

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