and occasional lifting; and, excellent as women nurses may be as subalterns in easy forms of general surgery, or in cases of their own sex or children, yet commend me to the trained and disciplined service of a male attendant, as my non-commissioned officer in operations, such as I have now brought before you.

CLINICAL LECTURE ON THE TREATMENT OF DETACHMENT OF THE RETINA.

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THE lecturer commenced with a brief reference to the causes and nature of detached retina, and to its diagnosis, and proceeded:

Detachment of the retina has always been held to belong to the class of cases for which remedial measures can do but little, and this, despite much vaunted new drugs and surgical procedures. The cases, however, which you have seen in our infirmary, and some of which I bring before you in more detail to-day will, I doubt not, have convinced you that, at all events in some cases, our art is able to accomplish a good deal. As to the methods that may be pursued for the treatment of this affection, that I ask your attention; and let me bring now before you some of them, and others more at length.

Rest in bed, in the recumbent position, and in a darkened room, is a desirable proceeding; and, at the same time, a compressive bandage may be applied over the affected eye. To this may be added the application of the artificial tooth to the temple, and the internal use of iodide of potassium. The object of all treatment is the restoration of the detached retina to its proper position, and a great means towards this end would be accomplished if the subretinal fluid could be absorbed. In this way much was hoped from jaborandi, and, shortly after it came into vogue, its alkaloid pilocarpine was extensively used, and was favourably spoken of by some writers. It was used in our wards some time since, in a good number of cases, with, however, a doubtful beneficial result. We looked in vain for the excellent successes of which others had spoken, but, in most instances, it certainly did no good; and it is questionable whether, in other hands, it occupies now a prominent place as a curative agent. Its use, moreover, is not pleasant to the patient. No one can, perhaps, deny that, in some cases, benefit has resulted from one or other of the methods of treatment just referred to; but, generally speaking, if any, it has been slight and transient, and the disease has soon become again, if temporarily checked, progressive.

Let us pass now to the surgical or operative side of the question. Many years since, Gräfe passed a needle through the sclerotic, and punctured the retina. In this way, he hoped the underlying fluid would escape into the vitreous chamber. Sir William Bowman improved on this method by employing two needles.

These methods, however, looking at the subject from the manner in which other collections of fluid are treated, were hardly what were required. If there be fluid in the pleura, the chest-wall is tapped, and the liquid evacuated; and the same in other parts. Why could not such a procedure be adopted in the case of subretinal fluid? Sichel is said to have punctured the sclerotic as long ago as 1859 to let the serous fluid out, and Gräfe, of Halle, has recently adopted such a procedure extensively. The credit of introducing these measures undoubtedly belongs to those just mentioned; but Dr. Wolfe, of Glasgow, has also practised a scleral incision, and has recorded some very successful cases. Gräfe performs his operation by telling the patient to look well upwards, and then, seizing with forceps a fold of conjunctiva in front of the equator, he punctures the sclerotic between the inferior and external recti muscles, and the fluid escapes. De Wecker has sought, it may be mentioned, to accomplish the evacuation of the subretinal fluid, and the re-application of the membrane to its proper place, by the insertion of a fine gold thread seton in the sclerotic. I have never felt disposed to make use of this method.

In a large number of cases I have, however, punctured the sclerotic, and have adopted the plan already referred to, as well as one in which the knife was entered under the conjunctiva, some little distance in

front of the selected point for puncture of the sclerotic. In this way, the latter was made subconjunctivally.

Dr. Wolfe proposed that the conjunctiva should be separated in front of the region of sclerotic where it was intended to incise it, and it was thus laid bare. He claims considerable success for his operations. It has been contended that there is little difference between the procedure he advocates and that adopted by Gräfe. In practice there is, I believe, a considerable difference in favour of proceeding in the way Dr. Wolfe suggests. This, at all events, is my opinion, after experience with both methods.

In Gräfe's, the fluid escapes underneath the conjunctiva, and, besides remaining there for absorption, there would very possibly in some cases be a limit to which drainage would take place, with semi-resistant structures over and around the scleral puncture. In Wolfe's the sclerotic is bared, and the fluid readily drains away. I may mention also that, ever since using the electro-magnet for searching the vitreous body, I have been familiar with the advantage of dissecting up a flap of conjunctiva, to bare the sclerotic at the selected point for incision. Sclerotic wounds heal well. The conjunctiva may be united by a suture, but this is sometimes unnecessary.

Let me now draw your attention to cases which have been under treatment, and which you have had the opportunity of observing from time to time.

CASE I.—You will remember William C. A., policeman, aged 43. He first came under notice on December 1st last. Ten weeks before, on closing the left eye, he discovered that the sight of the right eye was very defective. On examination, we found a distinct detachment of the retina on the outer and lower side; it did not reach to within a little distance of the optic papilla, but it extended from the more baggy portion in a less defined manner. $V = \frac{2}{3}$, and there was no improvement with + or - glasses. Tension was normal, and the vitreous humour was clear. The only assignable cause was that in the discharge of his duty he had been in sundry disturbances, and received blows on the head from stones. He was ordered iodide of potassium, and a few days later he was made an in-patient. Rest in bed, with compressive bandage in addition, was prescribed.

On December 21st, no appreciable improvement had, up to this date, taken place, and it was determined to puncture the sclerotic. For this purpose, cocaine was instilled, and the conjunctiva was separated up to a point between the external and inferior recti, nearer the latter than the former, and towards the equator. This place was selected because it was there that there was the greatest collection of fluid. After bleeding had ceased, the sclerotic was incised with a Gräfe's cataract-knife, at the equator, and the direction was meridional. Not merely a puncture was made, but the knife was allowed to cut its way for a little distance, making, perhaps, a wound as long as two widths of the knife; the wound was kept open by turning the knife on its axis; some amount of fluid, but less than had been anticipated, escaped. He was placed in bed, and the eyes covered with a bandage, and the after-treatment pursued which will be referred to in detail further on. Slight improvement followed the operation. There was still some detachment at the outer side; it had nearly gone below where the puncture had been, and the greatest bulging was on the upper and outer part. On February 8th, 1886, the sclerotic was again punctured, and, this time, the site selected was between the superior and external recti—nearer the latter. A large quantity of fluid escaped. He was kept in bed a week. The detachment became very much less. On February 22nd, there was still a little detachment, but it was very decidedly less since the operation. The field of vision had improved, and, as he said, he had recovered the power of seeing towards his nose. $V = \frac{2}{3}$. March 2nd, $V = \frac{2}{3}$; he read Jager 16.

He is here to-day. He speaks of a great improvement in his condition by the operations. I am indebted to Mr. Bishop for recording the notes of this case.

CASE II.—The other patient you have also seen many times, both in the wards and in the out-patient room. He tells us that, on February 5th, he found, on accidentally covering the right eye, that the left was very dim. He came under our observation on the 12th, and the manner in which he described his visual defect at once attracted attention. He could not see, he said, anything towards his nose. Examination disclosed a large detachment involving all the outer half of the retina, reaching close to the optic disc. Its inner edge was somewhat oblique from above downwards, and the detachment formed a bag which moved freely, and evidently contained a large quantity of fluid. He could see objects, fingers faintly, by turning the eye outwards. The field of vision, roughly taken, showed it to be wanting entirely on the nasal side, and contracted above and below.

He was urged to enter the infirmary with a view to operation. This he declined to do at once, but was made an in-patient on the 15th.

Previously to operating on this case, and in accordance with our custom, he was carefully examined with the ophthalmoscope, in order to ascertain the point at which the retina appeared the most baggy, and thus to select the situation for incising the sclerotic. As the result of the examination, the conjunctiva was dissected up a little distance in front of a point between the superior and external recti; and here towards the equator, after bleeding had ceased, the sclerotic was incised with a Gräfe's knife, in a similar manner to the previous case. Cocaine was instilled. A large quantity of deep straw-coloured fluid escaped, followed by a little of slight syrupy consistence. The importance of selecting for puncture a position which will be dependent is evident, but if other reasons render this inadvisable, it will be well, perhaps, to act as we did, both with this patient and the previous one, at his second operation, namely, to alter the position of the patient. For this reason, after the puncture in this instance, the patient's head was turned over the couch, to facilitate the drainage away of the fluid.

The conjunctival wound was closed by a single suture. He was confined in bed, with eyes bandaged, for a week; they were uncovered on the third day, and closed again, and on the fourth the stitch was removed. At the end of the week, an ophthalmoscopic examination was made, and the gratifying discovery was made that no detachment was visible, and that a good reflex was obtainable from all parts; the vitreous humour was a little turbid. He was kept an in-patient for several days later. His field of vision (Fig. 1) taken on March

Fig. 1.

12th, shows how the retina has been restored to its place, and resumed its function. $V = \frac{2}{3} \frac{90}{100}$, and he reads Jager 16 at ten inches, and sight is improving; the vitreous humour is becoming less cloudy.

CASE III.—One more case I will briefly relate. It has occurred quite recently in my private practice. I mention the case, because it is an excellent example of the good that may, in some cases, be achieved. On February 26th, a patient, aged about 40, was sent to me, by my friend Mr. W. M. Jones, of Wath. It appeared that, about ten days before, he had noticed the vision of the right eye defective. A few days later he consulted Mr. Jones, who detected a detachment of the retina, and advised his coming to me. In the meantime, vision became rapidly worse, and on the occasion of his visit to me, the most he could see, and that only below and outwards, were large objects; fingers were made out very faintly. The ophthalmoscope disclosed that the retina was very extensively detached. It took a diffused form, and was present in most parts, except that the inner part was freest; below, the detachment was greatest. An attempt was made to map out the field of vision with the perimeter, but this was found impossible. It was only below and outwards that the white traveller was visible, and then not in such a way that a field could be traced. He was highly myopic; the left eye, with -13 D, had normal vision. There was no history of injury, nor had the eyes been used excessively of late. I told the patient that I could only confirm the diagnosis his medical attendant had formed, and also his opinion as to the gravity of the case. I mentioned the propriety of puncturing the sclerotic, and strongly urged that, if the operation were to have a chance of doing good, it should be resorted to with as little delay as possible. He consented to Mr. Jones and myself meeting at his house the next morning, with a view to operation. In the meantime, after his journey home, he promised to keep himself ab-

solutely quiet. He expressed himself as sure that vision was becoming so rapidly worse that the little remaining would, if left alone, soon be abolished.

February 27th. Mr. Jones and myself met, and, after careful ophthalmoscopic examination, arrived at the conclusion that the point at which the fluid would be most readily reached would be below, on the inner side of the inferior rectus, and nearer to this than to the internal rectus. Accordingly, after the instillation of cocaine, the conjunctiva was separated up as in the previous cases, and the sclerotic incised towards the equator with a Gräfe's knife. A quantity of fluid escaped, and the patient stated immediately that he saw better. The conjunctival wound was closed by a single suture. Mr. Jones kept him in bed a week, and only allowed him to get about by degrees after. I was informed that his progress was "uninterruptedly good," but he did not come to Sheffield to see me until March 20th. The patient was then full of the benefit he had received from the operation. He read Jager 16, and could tell the time by his watch. The vitreous humour was clear, and the detachment had disappeared; there was one point below, at the periphery, where there was a very trifling portion. The diagram (Fig. 2) shows the condition of field of

Fig. 2.

vision at this date. He had been at his work for a week, and was in every way conscious of improved vision. Later, I have heard he continues as well or better.

The cases I have brought under your notice are instances which have received great benefit from the line of treatment pursued. The last case is a specially brilliant one. I have at different times incised the sclerotic in a large number of cases for retinal detachment, and I do not wish you to get the impression that all the cases have been improved in a degree corresponding to those you have recently seen. Many have, however, been distinctly improved. Just recently I saw a lady, and the benefit obtained twelve months ago remained equally marked at the present time. The procedure is not one attended with serious risk. My results have, I believe, been better since adopting the plan of dissecting up the conjunctiva, and incising the sclerotic more freely than occurred in those cases in which the sclerotic was simply punctured through the conjunctiva. Certain features in a case greatly conduce to success. The more recent the detachment, the more likely is the retina to resume its proper position. Those cases also in which the fluid is collected chiefly into a distinct bag, are I believe more favourable for treatment than those in which the fluid is collected in isolated portions here and there. In the latter class, it seems to me that one collection may be tapped without perhaps interfering with the others. The two classes of cases may be divided, as cysts are divided, into unilocular and multilocular.

Rest in bed, subsequently to the operation, for several days is essential; and as much bodily rest as the patient is enabled to take after this is likewise of value.

DR. W. R. HUGGARD has passed the Swiss Federal Examination, with a view to practice at Davos Platz. This examination has, we understand, not previously been passed by any Englishman.

DR. W. ORANGE the Superintendent of the Broadmoor Criminal Lunatic Asylum, has been nominated a Companion of the Bath.