TREATMENT OF ATROPHIC RETINAE WITH RETINAL EXTRACT.

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I do not propose to occupy your time for more than a few minutes with my address, but I am glad of this opportunity, which the honour you have done me to-day in electing me the first President of this Branch affords, of making known to the profession the results of some work I have recently been engaged in, which I trust may have valuable and far-reaching effects in relieving to some extent the disabilities of the semi-blind.

My attention was first drawn to cases of retinitis pigmentosa in which the functional activity of the eye is rapidly exhausted by bright light, and I wondered if it would not be possible somehow or other to supply the necessary pabulum for preserving the functional activity of the retina, the blood supply in a case of retinitis pigmentosa being extremely limited, one of the signs being marked contraction of the retinal vessels. Not long ago I had another case of the same disease in which, as well as the peripheral contraction of the field of vision, there was also great loss of central vision. Some time before this patient had crossed to Jersey, and had been most violently sick, with great retching; after a night's rest, however, the vision, which had been for some time previously failing, returned with wonderful clearness, and she could read with the greatest ease, the print looking firm and black. This lasted for some weeks, when it gradually again faded away, the print becoming very pale and difficult to distinguish. Here, then, was something definite to go upon, and I tried to think out some plausible reason for the improvement, and I imagined it was possible that the violent straining caused by the sickness might have forced more blood into the retinal vessels in the same way as into the vessels of the skin of head and neck, as evidenced by the intense congestion observed in such cases. It seemed to me at least plausible that in this way a greater blood supply, and consequently more pabulum, might have been conveyed to what had been a starved retina. I then thought of using amyl nitrite occasionally, keeping the patient lying down as much as possible, and using red glasses, which recent experiments of mine seemed to show are less exhausting to the retina.

Realizing that in retinitis pigmentosa the retina was, as it were, starved by the diminished blood supply through the contracted vessels, I wondered if any good would result by charging the blood more richly with the retinal constituents, and so compensating for the limited supply, and it was with this end in view that I first tried feeding with raw retinae of sheep and oxen. The results have been so striking that they seem to suggest that there may be some active principle present in retinae, and that the results are not due merely to the pabulum supplied by anatomical constituents of a similar tissue. Of course, it is very necessary to be on one's guard against accepting too readily that the results obtained are directly due to the treatment. One recognizes that the indirect effect of any treatment may be the real cause of any apparent improvement; in other words, the concentration of the mind upon any organ may stimulate any latent function that may remain. Such results we often see in the so-called Faith cures and Christian Science.

One thing, however, is perfectly clear, that there is actual improvement in function, and not mere imaginary improvement, the wish being father to the thought. For the patients, without any leading questions, themselves suggest the exact course of physiological improvement that one would expect. For instance, a patient who eventually gained a striking improvement explained early in the course of treatment that though she did not seem to be able to read more or smaller print, yet that it looked much blacker, whereas formerly the ink looked so pale that at times she could hardly distinguish it from the paper. Again, a man who asserted he was sure he was much better, when pressed to explain how he recognized his improvement, said that he could see the red flowers in the gardens quite readily, whereas he had not been able to do so for a considerable time before.

It would not be appropriate for me now to enter into

technical details of the series of cases in which I have tried this remedy; this I hope to do at the meeting of the British Medical Association at Swansea, but I may give you one more fairly conclusive piece of evidence of the value of this treatment.

After I had had several cases, all of which seemed to show very decided improvement, I remarked that, if this treatment was as valuable as it appeared to be, there was one disease that should be markedly benefited—that being tobacco amblyopia, which is very generally considered to be associated with some want of nutrition. Now, tobacco amblyopes whose vision is grossly reduced usually require three to four weeks' treatment before they show any marked improvement. The result of my trying this treatment on four cases was that within fourteen days, though they were not well, they could read small print quite readily. I think that ophthalmic surgeons will recognize this as a fair test of the value of the treatment.

The great difficulty has been securing the needful supply of fresh retinae. I have usually given from six to nine daily to each patient. But retinal tissue degenerates very rapidly, and there is great difficulty, especially in London, in getting them fresh from the slaughterhouse. I have made various experiments in attempting to secure a potent extract, which have been continued by Messrs. Burroughs, Wellcome and Co., and, under the name of "Optocine," they can supply an extract that seems to have all the value of fresh retinae. I should mention that, so far as I have been able to make observations, improvement can only be expected in cases of retinal atrophy in contradistinction to nerve atrophy. It would be well, however, to have a much more extended observation before coming to any definite conclusion on that point.

The cases in which I have had marked improvement have been retinitis pigmentosa, retinal degeneration in high myopia, retinal degeneration in choroiditis, and tobacco amblyopia. Cases of asthenopia from functional exhaustion should undoubtedly be benefited, but I have not as yet used it in such cases for two reasons: first, the difficulty of getting a sufficient supply of retinae; and, secondly, because they, of all cases, would be apt to be the most misleading. If its value can be established in gross cases, it can be given with confidence in minor troubles.

That is all I have to say on this occasion. I hope before long that other ophthalmic surgeons will be able to endorse my experience. I am anxious that this particular treatment of retinae that I am introducing to you should not be discredited by making greater claims than can be substantiated by actual experience.

I shall be glad at any time to communicate with any medical man who wishes for particular information with respect to this treatment.

TWO CASES OF FRACTURE OF THE BASE OF THE SKULL, WHICH RECOVERED AFTER VENESECTION.

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Two cases are not of much value: but the treatment, when a patient with fractured base begins to lose ground, is so nearly hopeless that they may be worth recording. In each of them, so far as I can see, the patient's life was saved by free bleeding, and by that alone. The first of them has already been published in the *BRITISH MEDICAL JOURNAL* (October 5th, 1901), and I give only an abstract of it here.

CASE 1.—A young man, who had fallen from a height, was admitted to hospital on the night of June 8th, 1901. There was a wound an inch long over the occiput; he was unconscious, bleeding from nose and ear; pupils unequal; breathing stertorous; temperature 96°. On June 9th, in the morning, he had recovered consciousness, and complained of severe headache; in the evening he became very restless, irritable, constantly trying to get out of bed; temperature 100°. On June 10th, in the morning, he was again unconscious, and the breathing was of the Cheyne-Stokes type; knee-jerk absent; constant spasmodic movements of lower jaw and of eyelids; temperature 102.4°. In the afternoon the temperature had risen to 104°, the Cheyne-Stokes breathing was intensely marked, the pulse was slow and of high tension; the face was deeply congested. It seemed certain he could not live more than a few hours. He was now bled from the arm to 20 oz.; and during the night he was bled again to 12 oz. On June 11th, at 8 a.m., the temperature was 101.5°; the

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