with the result that if they wanted to look anywhere except straight in front they had to move the head.

In each case the vision was practically normal in both eyes. The media and fundi were normal. The fields of vision taken roughly with the hand—a perimetric examination not being possible—were fairly normal.

The boys presented no other abnormality. They came of very poor parents and they had the normal intelligence of their class. The elder one was working with his father in a brick kiln.

As regards the family history, their parents were quite normal. They had two brothers, one younger whom I saw, and one older whom I did not see. The younger one, aged two years, was quite normal, and I am told that the elder one as well as two sisters was quite normal.

I have seen cases of oxycephaly before, but this is the first instance in which I have seen two brothers suffering from the same defect. Exophthalmos is usual, but this is the first instance in which I have seen ptosis with fixation of the eyeballs in the centre, and complete lack of movements of the eyeballs in any direction.

I am unable to lay my hands on all the literature on oxycephaly and hence do not know if such a defect has been recorded before. In any case I think the cases are rare enough and worth recording.

The question arises as to whether the ptosis and fixation of the eyeballs was due to mal-development of the muscles or the nerves. It seems to me that the defect was in the muscles. Lack of movement was certainly not due to exophthalmos. The condition was congenital, and the defect was noticed at birth. Skiagrams were of no help.

THERAPEUTIC NOTE

CHRONIC RETROBULBAR NEURITIS AND AMBLYOPIAS OF TOXIC ORIGIN

A New Method of Treatment

BY

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IN course of hospital and private practice oculists come across a number of cases with impaired vision, the correction of whose refractive error, usually small and very disproportionate in comparison to the defect of sight—does not improve the vision at

all, nor does the fundus oculi usually show any abnormality on ophthalmoscopic examination. As a rule these cases are disposed of, with the remark, "Eyes amblyopic, no improvement with glasses." Some of them are put on a mixture of pot. iodide and liq. hydrarg. perchlor. for some time—and as the patients do not experience any improvement, they discontinue the mixture and are left to their fate. Owing to the serious defect of vision, they cannot earn their living and thereby live a life of enforced idleness, become a burden to their family and a great economic loss to the community.

During the last four years I have made a careful clinical study and investigation of these cases and discovered a new method of treatment which has given remarkable results in over 150 cases. My series did not include tobacco and quinine amblyopias, but consisted mainly of cases of poisoning by heavy metals and acute infectious diseases.

If after examination of the fundus, visual fields and refraction, a case is diagnosed as retrobulbar neuritis or toxic amblyopia, the patient's blood is examined for the Wassermann reaction, which must be negative for the purpose of this treatment, and also the urine must be free from sugar and albumen. The above conditions being satisfied, the patient is given a course of six deep intramuscular injections of "contramine" in the gluteal region; .05 to .25 gm., according to the age, every 48 hours. Thereafter the patient is put on a mixture of glycerophosphates and strychnine, such as "metatone" (P. D. & Co.) or Huxley's syr. glycerophosphates co., dr. 2, thrice daily after meals. If a septic focus is found, as in teeth, tonsils and other sources, appropriate medical treatment or surgical intervention is instituted first. As a rule, the patient finds marked improvement in vision, both central and peripheral, after the injections, and the glycerophosphates and strychnine mixture improves the visual fields still further. I have tried, as a control, the above mixtures only, but no "contramine" injections, without the least benefit; but the same cases, with the injections later, improved remarkably.

"Contramine" is an organic sulphur compound manufactured by the British Drug Houses, Ltd., London. Reading the literature in which the manufacturers say that the drug is very useful in chronic infections and intoxications, I conceived the idea of applying it in the treatment of eye diseases in which chronic infections and intoxications seemed to be the causative agents; with what results the reader may judge for himself.

Contra-indications:—I have found from personal experience that this drug is absolutely useless in chronic retrobulbar neuritis or amblyopia caused by disseminated sclerosis, diabetes and syphilis, unless the Wassermann reaction is negative after anti-syphilitic treatment; and also in amblyopia ex anopsia. Hence it should not

be used in these cases nor in cases where the patient has or had nephritis in any form, or arteriosclerosis; the drug may prove dangerous in nephritics or in persons who are addicted to alcohol for a long time. After an injection of "contramine" the patient should abstain from alcohol for at least 12 hours. Under no circumstances should "contramine" be injected into a vein. Dosage:—Children and young adults should be given .05 gm.; adult females require .125 gm. generally per injection; adult males of robust constitution .25 gm.; even then the initial dose may be .125 gm. The dose should be judged according to the weight and constitution of the patient. Overdosage may give rise to salivation, giddiness, nausea, purging and headache; one or more of these symptoms may be found in a case; they indicate that the dose should be reduced at the next injection. Usually these symptoms are of no consequence and pass off in a few hours' time.

The success of the treatment depends on careful selection of cases and correct diagnosis; I had three failures, which, on further investigation, showed that the original diagnosis was wrong. The treatment should not be undertaken by anyone who is not an expert ophthalmologist. The drug itself may prove dangerous if not carefully used, especially in patients with any form of nephritis or arteriosclerosis.

I consider that with further investigations and experiments the use of "contramine" in ophthalmic practice may be still more extended, specially in those cases of syphilitic retrobulbar neuritis or partial optic atrophy in which the Wassermann reaction has been rendered negative by anti-syphilitic treatment, but with the visual defects still persisting.

ABSTRACTS

I.—PATHOLOGY

- (1) **Sanyal, S. (India).**—Study of a case of melanosis oculi. *Calcutta Med. Jl.*, Vol. XXVIII, No. 1, July, 1933.

(1) **Sanyal** describes the case of a medical student, aged 23 years, who consulted him for headache. The right eye presented a marked example of pigmentation of the sclerotic, which is well figured in the rather diagrammatic, coloured illustrations which accompany the article. The pigmentation was most intense towards the cornea, it reached practically to the limbus and faded as it proceeded backwards. The colour in most places was slate-blue, but there were three areas which presented a brownish-blue