

and next morning convergent strabismus of right eye, accompanied by vertigo, was present.

"This condition was maintained for three weeks, when a stage of excitement, followed by wild delirium set in, with a temperature of 101-103 degrees, and persistent hiccough. Diplopia, and dimness of left eye vision was also noticed. Sensibility was gradually recovered, but with it set in an intense thirst, requiring great quantities of water to satisfy it; his attendants say five to six gallons daily. The urine reaction was normal.

"Convalescence soon set in, and about thirteen weeks from date of injury, he began to walk about. The strabismus of right eye and dimness of left eye vision persisting, with vertigo on closing right eye and difficulty in maintaining the erect position when walking. The memory was greatly impaired for many weeks after the injury, and is still defective for any new fact or idea."

On examining the patient, I found him a highly intelligent man, apparently in full possession of all his faculties; has always been hypermetropic. Right eye directed inwards to face the canthus. Vision right eye equals $\frac{3}{8}$ °, with plus 2 sph. equals $\frac{3}{8}$ ° and with plus 4 equals 2 sn.

The right eye is used altogether for vision by turning head to angle of 70 degrees; with the aid of a stick he walks pretty steadily; but if he closes right eye becomes dizzy and falls forward. Diplopia is not complained of.

All the movements of right eye appear to be normal, except that there is absolutely no movement outwards and the pupil is immobile. Ophthalmoscopic examination was impossible in right eye, but in left eye the fundus was normal. Ordered the proper reading glasses.

Saw patient again three months after in office; he says the vision has improved in left, and failed in right, but varies greatly and several pairs of spectacles are required.

Vision right equals $\frac{1}{10}$ °, with plus 1.25 equals $\frac{2}{3}$ °. Vision left equals $\frac{2}{3}$ °, with plus 1.25 equals $\frac{3}{8}$ °.

Operation under chloroform. The tendon of the rectus internal was carefully divided close to its insertion, without much attempt at loosening, but there was no movement of eye outwards. The rectus external was then cut and advanced by Argyle Robertson method, the retaining thread being quilted through the conjunctiva above and

below the cornea to the internal side and then tied. The muscle was so much atrophied that the stitch gave away, and the thread had to be passed through the conjunctiva as far back over the muscle as possible. Correction to two mm. was obtained. In ten days made good recovery. A limited movement of eye outwards was noticed, with good movement in the other directions. The vertigo practically disappeared and the patient could walk without the aid a stick. Prescribed a prism of twelve degrees, base outwards, for right eye, combined with plus 1.25 in each eye, to be worn constantly.

Three weeks later, there was convergence of 4 mm., vertigo on closing left eye, but none with both eyes open; a tendency to fall forward in climbing a ladder, but good position of head and fairly steady gait.

CASE II.—N. H. C., æt. 47, referred by Dr. Brock, January, 1892, presenting the following history. In October, 1891, fell from a window, sixteen feet, to the ground, alighting on the side and receiving some injuries to the leg and thigh. Was unconscious for some hours. There was no bruise, pain nor soreness about the head. Is myopic; has worn glasses twenty years. Noticed defect in vision shortly after the fall; could only see objects clearly when looking upwards. In the forward and downward directions the objects became mixed up, lines were crossed, etc. If one eye were closed the crossing of the lines disappeared, but the lines slanted downwards and outwards in either eye. On examination, vision right equal $\frac{1}{20}$ ° and 1 sn. with far range; vision left equal ditto. Cannot read when book is held touching his breast, as lines become crossed.

Ophthalmoscopically, beyond cupping of the disk, with a myopic crescent, and large deposit of pigment at the scleral margin, the fundus was normal. There were no signs of hæmorrhage. Was unable to test the condition of the muscles fully, but there was evident limitation in the movement inwards, downwards and outwards; diplopia being produced in all directions by a prism of two degrees.

Strychnine gr. $\frac{1}{10}$, with pot. iod. gr. $7\frac{1}{2}$, t.i.d., was prescribed, and when seen four weeks after, the condition was greatly improved. I have been informed since, that he now experiences no trouble with his vision.

CASE III.—D. K., æt. 17, referred in January,