

tongue is greater than can be accounted for by the mere alteration of the tactile and pain senses then, of course, the case supports the contention of those who maintain that gustatory fibers from this part of the organ of taste pass to the brain through the trigeminus; but even so, no indication is afforded as to whether the course is through the otic or through the sphenopalatine ganglion. On the other hand, if the proper sense of taste is not lowered, then confirmation is afforded to the doctrine of those who contend that the pathway in question between the geniculate ganglion and the brain is via the nerve of Jacobson to the petrous ganglion.

#### REPORT OF OCULAR CONDITION.

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The patient, through the courtesy of Dr. Sanger Brown, came to me on the 2d of March, 1896. As I had known him for some years, I can fully corroborate what Dr. Brown has said regarding his education, superior attainments, and ability as an independent observer. He came to me on account of diplopia due to paresis of the left external rectus. Abduction was not much diminished, but there was slight convergent strabismus on looking straight forward. Paralysis of the abducens or external rectus does not by itself give rise to strabismus when the eyes are directed straight ahead, except in individuals whose muscles are not evenly balanced, and in whom the internus had the excess of power before the paresis occurred. When I first saw him there was convergent strabismus of six degrees, measured by the prism when looking directly forward.

He gave a history of severe coryza early in January, about two months previously, which persisted on the left side more than on the right. At the time he called there was no longer any acute inflammatory condition in the nose, but there was a purulent secretion, rather scant, from the left side. The septum was deflected to the left. The secretion came from the posterior regions, and may have been due to the inflammation of the sphenoid sinus. Some treatment by irrigation was adopted, which diminished this secretion and it almost disappeared. I

lay stress upon this because it led me to a view of the etiology of the case which the subsequent history has not fully confirmed. I have seen a number of instances in which paralysis of one or the other ocular muscle seemed to be directly attributable to nasal suppuration. In these cases the nose was narrow on the affected side, and there was the history of recent suppuration from that side, possibly in the ethmoid or sphenoid cells, a diagnostic point which is often difficult to determine with certainty. All of them recovered.

There was one point in this case that made me reserve my prognosis: Almost as a rule I have found that when there is strabismus on looking straight ahead, the prognosis regarding the recovery from a paresis is not as good as when there is no squint when the paralyzed muscle is not in activity. As Dr. Brown was directing the treatment with iodides, I limited my own treatment to the nasal suppuration.

The gentleman went on a Western trip, was much benefited in health, and while in San Francisco underwent a couple of nasal operations, I should presume, however, on a false diagnosis. The left maxillary sinus was punctured, but without finding pus. He was somewhat benefited, but I should judge more from the change of climate than from any active steps taken. Referring briefly to the subsequent nasal history, I can only say that the left side still discharges at intervals a scant muco-purulent secretion, but not continuously, and he has not cared for further surgical treatment.

The convergent strabismus increased, although the power of the abducens muscle did not diminish. In June, 1896, the condition had become stationary for so many months that I deemed an operation advisable for the relief of the diplopia in the median line. Accordingly, I made advancement of the left external rectus. The operation was done under cocaine and scarcely felt. Cocaine does not prevent the pain entirely in these operations on the contents of the orbit, but the pain was very much less than is ordinarily felt by sensitive patients; but, nevertheless, he was not entirely free from pain. The result of the operation, corresponding to the average success in such cases, removed the diplopia on looking straight ahead, but, of course, could not remove it when looking towards the paretic

side. Ten days later I made a tenotomy of the internal rectus and established a satisfactory condition, which persisted from June, 1896, until late in the summer of 1898.

Now, let me refer briefly to the intra-ocular condition. He has a low degree of astigmatism and a small amount of myopia in both eyes. With full correction his vision was 20/20 in both eyes. When he returned in May, 1898, he complained again of diplopia, and now, on testing him, I found the diplopia was vertical and no longer horizontal, except when looking in the direction of the paretic externus. There was now incomplete paresis of the left superior oblique, the muscle innervated by the fourth nerve. At this time the ophthalmoscope gave a normal fundus, but his vision of the left eye was not perfect, as when corrected fully I could not raise it to more than 20/30. I did not see him very often until August, 1898, when he complained more of diplopia, which had increased both in a vertical and horizontal direction. The success of the operation on the muscles moving the eye horizontally had not been diminished in the course of time, but paresis of the superior oblique had increased. At this time vision could not be raised to over 20/35. I did not see him again until a few days ago. Now the vision has sunk to 20/40, the myopia has increased in the left eye about a half diopter, and the astigmatism seems to have disappeared entirely. The ophthalmoscope shows no lesion, and the field of vision for white and colors shows no anomaly. I cannot account for the reduced sight of the left eye; it is not due to a retrobulbar neuritis. It may be due to a perineuritis of the intracranial nerve between the chiasm and the optic canal, but such a diagnosis is largely hypothetical. There are no other evidences pointing to any lesion anterior to the chiasm. When he returned in August, 1898, he complained of micropsia, objects appearing a little smaller to him when seen with the left than with the right eye. This may have been due to an optic condition, as the myopia had changed slightly, or it may have been purely of psychic origin.

When he returned a few days ago the paresis of the superior oblique had apparently increased slightly. But there was now a slight amount of ptosis of the left eye. It is a question in my mind whether this is due to involvement of the third nerve or

not. The ptosis is not the form we usually see in interference with the third nerve; the upper lid droops more as he looks downward, but can be raised to the normal extent when he looks upward. It is the exact reverse of the Graefe sign in exophthalmic goiter and there seems to be no actual loss of strength, as he can raise the upper lid voluntarily, and does so involuntarily as he looks up. The vision has now fallen to 20/40, without a sufficient intra-ocular explanation. Colors are seen with normal saturation, the false image belonging to the left eye being less sharply defined, but the tint of its color is the same as in the right, which would seem to exclude incipient atrophy of the optic nerve. The diplopia has ceased to annoy him, probably both on account of the poorer sight of the left eye and the screening by the partial ptosis. I considered it best not to advise any muscle operation, which he would willingly undergo, as it would no longer be a benefit to him.

We have here a gradual encroachment from the fifth nerve, and at the same time the sixth to the fourth, and now possibly to the third. But the involvement of the latter nerve is uncertain, as no other fibers of the third are involved, the pupils being normal in both eyes, and all the other muscles normal as far as one can judge. The pupils are sluggish, but perhaps not more so than corresponds with his age.

The anesthesia of the conjunctiva and the lids is, perhaps, a little more absolute than originally. At the time of the operation in June and July, 1896, the anesthesia was not quite complete. The cutting part of the operation was scarcely felt, but the dragging of the sutures was a little unpleasant. The nose I have not examined carefully recently for anesthesia. On previous occasions it had never been entirely anesthetic; he had felt manipulations with the probe somewhat unpleasantly. There is no appearance of atrophy of the mucous membranes. The areas of sensation, I think, have been described by Dr. Brown. His hearing is normal as to range. There is no interference with any of the secretions.

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174. BEITRAG ZUR LEHRE VON DEN PATHOLOGISCHEN BEWUSSTSEINSTÖRUNGEN (Contribution to Pathological Conscious States). Schultze (*Allg. Zeitschrift f. Psychiatrie*, 55, 1898-1899, p. 6).

Schultze describes three cases of what may be termed ambulatory automatism. These he considers comparatively rare conditions, for Germany. These patients had all taken somewhat extensive trips away from their homes, without any aim and seemingly motivated by unknown impulses. Amnesia was present in varying grades. In two cases degenerative factors were not particularly prominent; in a third case dipsomania was present with other well-marked degenerative characters. The author is inclined to class all of the cases as post-epileptic automatic states, though in the discussion following this paper the opinion was strongly expressed that the condition undoubtedly existed apart from the epileptic taint, in which latter class of cases amnesia, however, is apt to be more profound.

BENOIT.