

information thus obtained cannot as yet be so complete as that furnished by a direct examination of the stomach contents. *As confirmatory evidence, however, and as a method to be employed where for any reason the use of the tube is either contraindicated or impractical, the same, I am sure, will be found to be of decided value.*

(To be continued.)

NEURALGIA OF THE RIGHT TRIGEMINAL NERVE OF EIGHT YEARS' DURATION;

EXCISION OF THE THREE DIVISIONS AT THE GASSERIAN GANGLION;
RECOVERY, WITH PARTIAL DESTRUCTION OF THE GANGLION.

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HISTORY AND EXAMINATION BY J. T. ESKRIDGE, M.D.

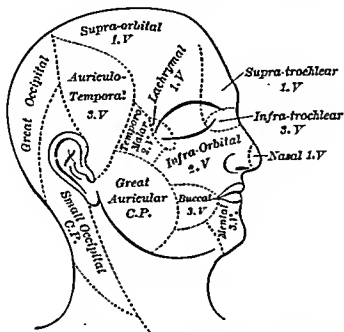
JAMES L., aged forty-five years, born in Ireland, single, engaged as a laboring miner in Colorado eighteen years, has been suffering from neuralgia of the right trigeminal nerve since March, 1885. His father was very intemperate in his youth; his mother died in childbirth. No nervous or mental diseases in the family. One brother died of consumption. In childhood the patient's health was excellent. He denies syphilis and alcoholism. Fifteen years ago he suffered from what his physician called scurvy. He had been living on salted food, and his feet and legs swelled, and he was weak. In 1883 he had an attack of typhoid fever. From 1883 to 1885 he suffered from rheumatic pains in joints while working under ground in wet mines. In February, 1885, he had a severe attack of rheumatism, with swollen and painful joints. The wrist, elbow, shoulder, knee, and hip-joints were involved. In March, 1885, he began to have pain in the region of the right inferior dental nerve. The attack was extremely severe for three weeks, and after this the pain was constant, but not so severe. The pain was limited to this nerve. Within a year from the time the neuralgia first began it had extended to the region of the face in front of the right ear, and involved an area there one or two inches in diameter. After the extension of the pain to the region of the right ear it became intermittent. He would suffer for a few days from severe pain in the inferior dental nerve, the next day from a dull pain in front of the right ear, when he would be free from pain for several days. The pain in 1889 occasionally extended to the superior maxillary nerve. The first division of the fifth cranial nerve was never involved. At this time the pain became constant again, with periods of severe exacerbation. Before this time he

had several teeth extracted on the right side from the lower jaw, but he obtained no relief. During the summer of 1889 he had all his remaining teeth—twenty-three in number—extracted. This seemed to intensify his suffering, and his pain then was not only constant, but severe. The next three years were spent in seeking relief from his intolerable agony, but he never obtained more than three or four weeks' freedom from pain at any one time. He first consulted me on November 25, 1892. He is a heavily built, muscular man, and weighs about two hundred and twenty-five pounds. On careful examination no symptoms of impaired health are found outside of the regions of distribution of the second and third divisions of the right fifth cranial nerve. The absence of natural teeth, whose place has not been supplied by artificial ones, has resulted in permanent contractures of the masseter muscles, and it is impossible for him to open his mouth to the normal extent. The gums on the right side of the lower jaw and the lower lip on the right side are hyperalgesic, and the slightest contact of substances, especially if their temperature is cool, often causes violent paroxysms of pain. The gums have remained so sensitive since the extraction of his teeth that it has been impossible for him to endure the presence of a plate for artificial teeth, and during the last three years he has been compelled to live on liquid or semi-solid food. Tactile-sense is a little blunted on the lower lip on the right side. Temperature-sense on the right side of face, especially on the lower portion, remains about normal, except an increased sensitiveness for cold. Vision, hearing, and smell seem to be nearly equal on the two sides. Taste is more acute on left side. As he had undergone the various forms of treatment for relief of neuralgia of the fifth nerve, I advised him to have the three divisions of the nerve excised at the Gasserian ganglion.

He entered St. Luke's Hospital the next day with the expectation of having this operation performed, but after he had remained in the hospital a few days his courage began to fail him, and he asked to have the superficial operation, of which he had heard, instead. I placed the patient under the care of Dr. Edmund J. A. Rogers, one of the surgeons of the hospital, and he, in the latter part of November (1892), excised a portion of the right inferior dental nerve in the dental canal. This procedure was acquiesced in by Dr. Rogers and myself, the more readily because all his paroxysms of pain started in the inferior dental nerve. At the same time we informed our patient that nothing more than temporary relief from pain would be likely to follow such an operation. For four or five days after this operation he was entirely free from pain. For the next two months, or until about the 4th or 5th of February, 1893, he experienced a momentary shooting pain in the right side of the lower lip once or twice daily. During these two months he had no pain or sore feeling in the front of the right ear, the region which had been the seat of constant pain for several years. Early in February, 1893, he took a cold. Immediately the face pain began to increase. The right lower lip, which after the operation was completely anæsthetic, became the seat of constant pain. Although the sense of touch was absent, yet a cup placed to his lips caused intense suffering throughout the distribution of the right inferior dental nerve. The pain spread over the region supplied by the second division of the right fifth cranial nerve. The slightest motion of the lips was sufficient to cause a paroxysm of neuralgia; even the act of swallowing was attended with severe pain in the

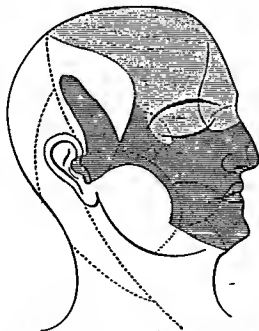
second and third divisions of the nerve. After the middle of February he stopped work, and by the early part of March the suffering became so intense that he meditated suicide. Rather than take his own life, he decided to return to St. Luke's Hospital, and have the major operation

FIG. 1.



Normal distribution of the fifth nerve to the face. (From FLOWER.)

FIG. 2.



Deeply shaded area represents almost total anesthesia in case operated upon;
light area, partial anesthesia.

performed. He entered the hospital the 9th of May, and the operation was performed on the 23d of the same month. Before the major operation he had grown quite nervous and depressed. The region of distribution of the right inferior dental nerve remained anæsthetic to touch,

the same as it was immediately following the excision of this nerve. Pain was limited to the second and third divisions of the right trigeminal nerve, the first division never having been affected. Immediately after the second operation he was relieved of pain, and he has remained entirely free from it up to the present date, September 12, 1893.

Present condition. Patient has gained several pounds in weight since the operation, and feels quite well.

It will be seen that the first division of the nerve was not completely excised. Taste is absent in the right anterior portion of the tongue. Smell is present and equal on the two sides.

Hearing: right, 1/12; left, 1/6. Tuning-fork is heard better in left ear.

Since the operation he has complained of an annoying sensation, which he describes as a "feeling that he is breathing through the right ear when the mouth is closed." He states that he has had a constant dull feeling in the right ear since the operation, and two weeks subsequent to the operation the sound of his voice began to be intensified in the bones in the front of his right ear. This sensation has increased, and at times it is annoying.

CONDITION OF EYES BY DR. E. C. RIVERS.

The palpebral opening in the right eye is considerably wider than the left, and is apparent at a glance. The movement of the eyes is the same in all directions. Pupils equal and normal in size. Reaction to light and convergence normal. The sensibility in the right eye is very much reduced all over the cornea and conjunctiva, but everywhere present. Patient thinks it over one-half that experienced when left eye is touched in the same manner.

Vision: O.D., 20/100; O.S., 20/20.

Hy., 4.50 D., previously corrected.

Examination macroscopically and by oblique illumination shows:

Right eye: Cornea superficially cloudy throughout all that portion unprotected by the lids. The cloudiness is due to exfoliation of the superficial epithelial layers, and accounts for the diminution of vision, as when the pupil is dilated the vision improves to 20/70. The ophthalmoscope shows no abnormal condition of the rest of the optic media.

Left eye: Normal, except Hy.

When I examined the patient, about four weeks after the operation, there was no sensibility of the cornea of the right eye, and no cloudiness. Vision at that time was equal to the left eye—20/20. About the 20th of July I examined him again, and found the cornea insensitive everywhere except at the upper portion, at one point near the periphery, immediately above the middle of the cornea, where he could feel the contact of a probe.

OPERATION BY DR. EDMUND J. A. ROGERS.

The first operation, performed on November 28, 1892, was begun by a long free incision parallel to the ramus of the jaw and just beyond the face line. The flap was reflected forward, and the attachment of the masseter muscle scraped away from the broader portion of the jaw, just about the angle. A three-quarter-inch button was then trephined from the outer table of the jaw, and lifted to expose the canal.

The nerve was then booked out and drawn from both directions, and about three-quarters of an inch excised. No antiseptic was used during the operation. The operation at the time was very satisfactory to the patient, and he left the hospital in a very happy frame of mind. There was considerable callus thrown out, but repair was so complete that when he returned to the hospital in May it was impossible from appearances to say which side had been operated upon. The two of my *confrères* who examined it both named the opposite side, as there were some old scars on the neck there from some early skin disturbances.

The agony that he suffered during the days that he was in the hospital before the second operation is beyond description. He would sit in a corner where no movement of air could reach him, and would not move, speak, or swallow if he could avoid it, on account of the severity of the paroxysm of pain which he endured.

On May 21st, after thorough preparation, he was placed on the table for the major operation. Chloroform was used as the anæsthetic, and he took it very badly. After the face incision had been made and the flap partly reflected, his heart failed almost completely, he became cyanosed, and death was imminent. With difficulty he was revived, but so slowly and so incompletely that it was decided that he could not stand the operation then. The wound was closed and dressed, and he was put back in bed, where in a few hours he fully recovered. On the 23d, two days later, the operation was again undertaken, ether being now used as the anæsthetic. We were assisted in the operation by Drs. Parkhill and Bagot, Dr. Atchison, of the resident staff, giving the anæsthetic. Rose's operation, as detailed by him, was closely followed, with few exceptions. The manual labor of the first part of the operation is very trying, and when the second portion is reached one has already done considerable manual labor. The internal maxillary artery was not ligated. It could easily be felt, and pulsation was visible by the electric illuminator; but it was not easily isolated, and after an aneurism-needle had been passed around it pulsation disappeared and did not return. No vessel was ligated throughout the operation. On tearing away the attached muscles from the base of the skull the blood oozed in slowly from all sides, and this, together with the great size of the patient's head (he requires a No. 8 hat), rendered it impossible to make any use of light in the deeper part whatever, and all the essential part of the operation had to be done by tactile sensation. The foramen ovale was easily made out and the nerves traced to it. I trephined well to the outer side of it, and then, with the chisel and mallet, cut through the intervening bone. I had hooks specially made from Rose's model, but found them too small to be of much service, working at so great a depth; and my only guide was tactile sense. Having made a free opening, by means of which I could easily feel the presumed site of the ganglion, I passed a sharply curved aneurism-needle under the ganglion and raised it from its bed. I then, by means of the sharp hook and other instruments, completely dismembered its substance down to my aneurism-needle. Being unable to see, this was a tedious and unsatisfactory proceeding. I then picked away the upper portion of what seemed to be the ganglion as high up as I dared go. I did not wash out the wound in any way, as the constant oozing of blood had kept the wound irrigated. I removed the coronoid process of the jaw entirely, and, to save time, followed Dr. Parkhill's suggestion of stitching the zygoma to the temporal fascia, instead

of wiring it. I closed the wound completely and dressed it. No antiseptic was used in the wound or in the dressing, and no vessels were ligated, the oozing being allowed to fill the wound as it was closed. The patient expressed the greatest sense of relief on coming out of the anæsthetic, one of his first expressions being that he "would rather undergo the operation once a week than endure the agony." Convalescence was slow and uncertain, but in the long run very satisfactory. His whole nervous system seemed to have received a shock which rendered its mechanism very uncertain. For a few weeks the patient seemed very hysterical. For slight causes he would become very emotional, and from very slight disturbances his temperature would vary many degrees. No symptoms of septic infection manifested themselves, and, surgically, the recovery was very satisfactory. When the wound was first dressed it was found completely closed, and has given no trouble since. I had photographs of his full and side face taken the day before the operation and taken again now. From these it can be seen that the disfigurement is very slight. The region about and below the zygoma is slightly sunken, but hardly enough to attract attention. The most trouble in the after-treatment was from the anæsthesia of the conjunctiva, it being a couple of months before it could be left uncovered without some irritation manifesting itself.

August 10, 1894, the patient writes that he has had no return of the pain, and all discomfort in the right ear and around it has disappeared.

A CASE OF CONCURRENT SARCOMA AND HIP-JOINT DISEASE.

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THE coexistence of two active diseases in the same part has been denied by some authors, but admitted by others as a rare occurrence. The doubt, which first existed, as to the true condition in the case to be described was rather increased by this fact, but the clinical history and the examination have indubitably proven that such coexistence is possible. The case was an attendant upon the Orthopedic Dispensary of Jefferson Medical College Hospital, under the care of Prof. H. Augustus Wilson. It is especially interesting on account of both its well-marked clinical features and its rarity, for while there is no hindrance to the development of a sarcoma at the site of a hip-joint disease, yet such a condition has seldom, if indeed ever, been reported.

The history is as follows:

W. W., aged nineteen years, was born in Austria, and a resident of this country for two years. The family history is negative as to tuberculosis or syphilis. The patient is of small stature, but not because of ill health, for his personal history was quite good until he was fifteen years of age. At that time he fell, striking heavily upon his right hip. He suffered somewhat for a few days, but gave no special attention