

PHILADELPHIA ACADEMY OF SURGERY.

STATED MEETING, DECEMBER 4, 1882.

The President, Prof. S. D. Gross, in the chair.

Dr. Ferdinand H. Gross reported a case of trigeminal neuralgia relieved by ligation of the carotid artery, and neurectomy, which is published in full in the *American Journal of the Medical Sciences* for April, 1883. He gave a condensed clinical history of the case extending over nine years, with an account of the various remedial measures undertaken for its relief. The result of the operative treatment may be summarized as follows:

1. The effect of the ligation of the common carotid artery was immediate relief in the domain of the first and second divisions of the trigeminal nerve; the period of immunity from pain in the second division being fully two years, while in the first division the pain has never returned, the relief there being probably permanent, and can only be accredited to the carotid ligation. The effect of this operation upon the third division of the nerve was too transient to count for anything.

It should be added that no impairment of intellect has followed the ligation. After the lapse of nearly two years and a half no disturbance of brain functions has been noticed either by Dr. Gross or the patient, or by any of those who are habitually associated with him.

2. The first neurectomy of the inferior dental nerve, eight months later, resulted in a period of relief from the neuralgia of about one year and three months—to remain within safe limits.

3. The last two operations, viz., the neurectomy of the superior maxillary, and the repetition of the operation upon the inferior dental nerve, were performed within two months of each other, September 14th and November 11th, respectively, and may be considered together. The

result thus far is entirely satisfactory, the patient being now, three months later, completely relieved of the neuralgia.

The President, after thanking the lecturer of the evening for the interesting and exhaustive manner in which the subject had been presented, remarked that the paper was well worthy of elaborate discussion, and requested Prof. Bartholow, who was present as a visitor, to give his experience from a medical point of view.

Dr. Bartholow expressed his gratification at the privilege afforded him in listening to the paper, which he thought was full of instruction, but would prefer to suspend final judgment as to the ultimate result of the operations until a longer time, say, six months, had elapsed. While he could not speak of the subject as a surgeon, he would say that he had used, with good effect, in severe cases of neuralgia, deep hypodermic injections of chloroform, and in a number of instances with permanent good result. From five to fifteen minims was the quantity injected, but it was necessary to lodge the chloroform deeply and near the nerve-trunk. In only one case in his experience had there been any trouble from the formation of abscess after the use of this remedy.

Dr. Brinton stated that he had performed neurectomy three times, but in his experience there had been but little permanent good. In all the cases, the pain had returned in from six to twelve months. During that time, however, the patients were more or less comfortable, and regarded from this point of view, the operation would seem justifiable, as affording temporary respite from suffering.

Dr. Packard said he had operated on one case, in 1869, trephining the anterior wall of the antrum, drawing out the nerve and dividing it far back.

The patient, a gentleman from Minnesota, had suffered extremely for twenty-four years. He derived immediate relief from the operation, which lasted at least

for six months after his return home ; since which time Dr. Packard had not heard from him.

Dr. Willard related his experience with a case in which the inferior dental nerve was divided by trephining the ramus of the jaw. The patient had been a sufferer for five years, and had become addicted to the hypodermic use of morphia in enormous doses. The relief was partial for six months, when, the pain returning, a second operation was done, resecting an inch of the nerve, since which time, now six years, there has been no return of the disease.

Dr. Nancrede said that the remark made by Dr. F. H. Gross, with reference to the possibility of seeing the foramen rotundum through the orbit in some skulls, whilst in others it could not be seen, seemed of much interest, since Dr. Gross had shown on the two skulls he had presented, that a somewhat different manipulation would be necessary in order to divide the nerve close to its point of emergence from the cranium. A cursory glance would show that these two skulls presented marked examples of two types of orbital fossæ, viz.: the quadrate and the rounded. In the former, the transverse diameter is fully one-third greater than that from above downward, while in the latter they are nearly equal. Where, then, the transverse diameter very much exceeds that from above downwards, the floor of the orbit is, as it were, *raised*, and the foramen rotundum hidden from view ; whereas, when the opposite measurements obtain, this opening can be seen. Dr. Nancrede then pointed out that the junction of the external angular process of the frontal bone with the malar, could be readily detected on the living subject as well as, approximately, the suture between the internal angular process of the frontal with the nasal process of the superior maxillary bone. Measuring between these two points would give the transverse di-

ameter. Again, the supra-orbital notch, or foramen, is usually readily detected ; while a line dropped from this point with a slight inclination outwards, will strike the margin of the orbit just above the infra-orbital foramen, which opening can be usually detected by careful palpation. Measurement between these points of the orbital margin would give the diameter from above downward. By comparing the diameters, Dr. Nancrede thought that one could predicate before an operation, whether the foramen rotundum could or could not be seen from the operation wound. It might seem a point of small importance, but in a delicate operation like that performed by Dr. Gross, the minutest details were of importance, and "forewarned was forearmed."

Dr. John B. Roberts was especially interested in the result of the ligation of the common carotid artery ; and, as the relief of pain was probably due to cutting off the blood current from the central portion of the nerves involved, suggested that ligation of the internal carotid might be as beneficial. This, as shown by Wyeth, can readily be done just above the level of the top of the larynx.

Dr. R. J. Levis remarked, that in operations upon the inferior dental nerve he had sometimes found it difficult to draw the nerve out. In an edentulous jaw this might possibly not be so.

Dr. F. H. Gross, in closing the discussion said, Dr. Nancrede's remarks upon the anatomical points of the orbit were interesting, as showing the possibility of determining in advance of an operation by external measurements, the variations in the orbit of different skulls ; but no matter what peculiar formation these measurements might lead him to suspect, he would still prefer Wagner's method of operating, although, in some cases, nice manipulation might be required to divide the nerve far back.

In Langenbeck's and Huter's subcuta-

neous operations, the nerve was divided in the speno-maxillary fissure, but in Wagner's, the nerve is brought into view, and can be divided at a more central point, even at the foramen rotundum and behind Meckel's ganglion. In this operation, too, the violence done to the superior maxillary bone, as in Carnochan's mode, and some others, was avoided.

As to Dr. Robert's suggestions, to tie the internal carotid, the speaker thought he would prefer to boldly tie the common carotid. The object was, of course, to lessen the intra-cranial pressure and irritation. He further remarked, that whilst it was unfortunate that the neuralgia sometimes returned after neurectomy, they had nevertheless, heard of patients being relieved for years, and sometimes permanently, and that relief, even for a short time, from the atrocious pain of this malady was a great boon. He was fully in accord with the writer who had said: "The possibility of relapse should not militate against resection."

NOTE.—March 19, 1883. "At this date, over *four months* after the neurectomy of the inferior dental, and over *six months* after the operation upon the superior maxillary nerve, the patient continues entirely free from neuralgia." *Medical News*.

M. G. LE BON has called attention to two new and very effective antiseptics, the glyceroborate of calcium and the glyceroborate of sodium. They are both very soluble, odorless and unpoisonous, and deliquesce rapidly when exposed to the air. They are powerful antiseptic agents, even in very dilute solutions. The calcic salt appears to be the more effective of the two, in a therapeutic point of view, and may be applied, even in strong solution, and to so delicate an organ as the eye, without bad results. These salts have been proved to be excellent preservers of meat during a South American voyage.—*Popular Science Monthly*.

FOR MASKING THE ODOR OF IODOFORM, Dr. C. Scherk (*Pharm. Zeit.*, 1882, p. 740), recommends carbolic acid. On rubbing together 10 grms. of iodoform with .05 grm. carbolic acid and 2 drops of oil of peppermint, the disagreeable odor of iodoform is completely masked and will not appear again even on heating. The addition is somewhat less effectual if vaseline be used for the ointment; but is still more agreeable than tonka, balsam of Peru, oil of caraway, or oil of peppermint alone.—*Amer. Journ. of Pharm.*, March, 1883.

CRANIAL NERVES.

CRANIAL NERVES.—By William Oscar Thrailkill, M.A., M.D., D.D.S., San Francisco and Oakland, California.

This is a chart, presenting, in a concise form, the number, name, foramen of exit, principal distributions and functions of the cranial nerves. To the student it might be convenient as a ready means of reference, but we cannot see that it contains any information which may not readily be obtained from the standard text books.

"I WOULDN'T be in Egypt," said Mrs. McGill, last week, "for all the wealth of Creosote." Seeing a look of astonishment in the faces of her auditors, she added: "Creosote, you know, was an old Roman god, and everything he touched turned into gold."

RULES FOR ALLOYING GOLD.

When the carat is known, to find the quantity of pure gold:

RULE.—Multiply the weight by the carat, and divide the product by 24.

Or, let C represent the carat;

" W " weight.

W x C

Formula: $\frac{W \times C}{24} = \text{quantity of pure gold.}$

24

EXAMPLE.—To find the quantity of gold in 156 grains of an alloy of 19 carats fine: