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LECTURES.

CLINICAL LECTURE ON FACIAL PARALYSIS.

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GENTLEMEN: You all, no doubt, recognize this man as the patient who was before us on the occasion of our last clinic, suffering from very marked facial paralysis, and I think you cannot fail to be struck with the very remarkable improvement noticeable in the case, although he has been under treatment for only a week. This treatment, you will remember, consisted of the local application of electricity and the internal use of strychnia in gradually increasing doses. He commenced with ten drops of a solution of strychnia (there being about one fortieth of a grain of the drug in each dose), and took two drops more each day, until he is now getting twenty-two drops, or about one twenty-fourth of a grain of strychnia. To-day he tells me for the first time that he is beginning to experience some stiffness in the muscles, and this shows that we are getting the physiological effects of the drug which it has been our design to obtain.

The great improvement is shown here in a variety of ways. He can now elevate the eyebrow and forehead on the affected side, which was before impossible. He can close the eye and wink with perfect ease. He can retract the angle of the mouth, spit, smoke, and even whistle after a fashion, though he does not succeed in making very much noise. When he speaks the mouth is no longer drawn to the opposite side, and he is not troubled at all with the accumulation of food between the gums and cheek when he eats. Under the old-fashioned methods of treating facial paralysis it generally takes at least a month to cure a case, and sometimes the patient never perfectly recovers; but if the plan here practiced is adopted, any ordinary case can be entirely cured within a fortnight at most. Of course, you will understand that I am not referring to paralysis depending on intracranial disease, which is a much more serious matter.

Let us glance for a moment at the anatomical course and distribution

of the facial nerve, or the portia dura of the seventh pair, in order that we may be able to locate the lesion in any case of paralysis affecting it. Arising from the floor of the fourth ventricle, it passes forwards and outwards upon the crus cerebelli to the internal auditory meatus, at the bottom of which it enters the aqueductus Fallopii. The course of this it follows through the petrous portion of the temporal bone, and then emerges at the stylo-mastoid foramen, after which it passes through the parotid gland, and behind the ramus of the lower jaw becomes divided into two great branches. These are the temporo-facial and the cervico-facial, and from them are given off the numerous smaller branches which supply the superficial muscles of the side of the head, face, and upper part of the neck. Now, if the lesion producing the paralysis is situated at the origin of the facial nerve, or somewhere along its course, posterior to the point where it gives off the chorda tympani (about a quarter of an inch before it emerges from the aqueduct of Fallopius), we shall find that the sense of taste is blunted, and if we examine the fauces it will be seen that the arch of the soft palate on the affected side is decidedly flattened, while the other one retains its natural curve. The taste is not absolutely abolished, but is diminished in acuteness, and this is unquestionably due to the paralysis of the chorda tympani, although the precise manner in which this nerve takes a share in the exercise of the sense of taste is still a matter of discussion among physiologists. The flattening of the palatine arch is due to the fact that at the point of its exit from the stylo-mastoid foramen the facial sends off a twig which communicates with the glosso-pharyngeal nerve. In addition to these two symptoms, there will be paralysis of all the facial muscles. Again, if the lesion be located at the point of exit, or immediately before it emerges from the stylo-mastoid foramen, the sense of taste will remain unchanged, but the flattening of the palatine arch will be observed, as in the preceding case. Besides this flattening of the arch, I may mention that there is sometimes a deviation of the uvula towards the unaffected side.

But if, on the other hand, the nerve is affected after its point of exit from the aqueduct of Fallopius, neither of these phenomena will be observed. In the present instance there has been merely the paralysis of the facial muscles, without any interference with the sense of taste or flattening of the palatine arch, and therefore we know that whatever the trouble has been it must have been located exterior to the stylo-mastoid foramen. This is an important point to determine, and hence in all cases of facial paralysis it is advisable to test the sense of taste by placing a drop or two of some pungent fluid, like vinegar, on the corresponding side of the tongue, when, if the chorda tympani is involved, its taste will be perceived by the individual only after a considerable interval, and in a very imperfect manner.

Since the man was here last week I have made six applications of electricity to his face. At each sitting I would commence with the primary current, placing one pole of the battery just in front of the ear, and carrying the other to all the facial muscles in turn. Then the faradic current would be employed in the same way. Every one of the muscles was paralyzed in this case, and you can now see how great has been the improvement in all of them.

Without the assistance of electricity any treatment of facial paralysis whatever is almost inert. The improvement has already been so marked in this case that I will venture to say that in three days more the man can safely be dismissed entirely. One of the chief difficulties that the patient had at first was to chew his food properly. He was constantly liable to bite his cheek, and he would be obliged frequently either to put his finger in his mouth and take out the food which had got in between the cheek and the gums, or else to make continual pressure with the hand upon the outside of the cheek, in order to prevent it from getting into that position. This feature of facial paralysis is due to the affection of the buccinator muscle, one of the offices of which is to keep the food in contact with the molar teeth during mastication; and, as we have seen, it has now entirely disappeared in the present case.

The way of treating such cases until recently in vogue was to apply a blister behind the ear, and then let the patient alone, or perhaps give him iodide of potassium, the iodide of potassium being a sort of "omnibus medicine," which a great many practitioners are in the habit of prescribing in any case which they do not know very much about. If there were a tendency to gout or rheumatism in the patient, colchicum would be substituted for the potassium. For internal administration, however, there is nothing of half so much service as strychnia, and, as has been done in the present case, it should be given in constantly increasing doses until the physiological effects of the drug are shown. Here the dose of the strychnia solution will be carried up to twenty-four drops to-morrow, and it is quite probable that after that date the patient will not require any further medication. In case that he should, however, I will then commence at ten drops again, and gradually increase the dose in the same manner until the cure is complete.

After treatment by the old method it was not infrequently found that there was a certain amount (though perhaps but a trifling degree) of paralysis remaining permanently. Now, although this slight partial paralysis might make no particular difference to a man, it would certainly be a matter of no small importance to the fair sex, in whom, after all that is said, their faces are generally their fortunes, and to whom it would certainly be a misfortune of no small magnitude not to be able to use the face to the best possible advantage. Happily, by the plan of

treatment which has here been employed, and which I can confidently recommend to you, such a melancholy result can always be avoided, unless the facial paralysis is dependent on some serious lesion.

RAPID LITHOTRITY.

BY J. COLLINS WARREN, M. D.

THE new method of treating stone devised by Dr. Bigelow has been received with so much interest in this country that I venture to report the following case as one peculiarly illustrative of its great advantages: Mr. N., a stout, ruddy Englishman, fifty-four years of age, sought my advice in November last. He had always enjoyed good health until March, 1877, when he first began to notice that driving into town to his business, as had been his custom for many years, caused pain in the end of the penis, so that he was soon obliged to give up his carriage, and use the horse-cars. Pain, however, was now felt on passing water, and micturition became frequent, obliging him to rise once or twice in the night. These symptoms had continued, but his general health had suffered little. An examination of a sample of urine showed a considerable sediment of mucus, pus cells, triple phosphate crystals, and bladder epithelium. Owing to a somewhat large prostate it was difficult to introduce a sound, but this was accomplished after attempts with one or two instruments of different shape, and stone was detected. His temperature rose the next day to 103° F., and continued high for three days, obliging him to keep his bed. Under appropriate remedies, however, the disturbance soon passed off. Business matters intervening, the operation was postponed, and from this time until the latter part of February I lost sight of my patient, when he reappeared, looking much altered and emaciated. It seems that he had been confined to the house a short time previously, at his residence in the country, for several weeks by a stoppage of water, followed at intervals by the passage of seven calculi from the urethra. Several of these had evidently remained for some time in the passage, the water being drawn by a small bougie catheter. The smallest of these stones measures in its shortest circumference 25 Charrière's flière, and the largest 31 Charrière. He was still suffering from partial retention, and a subsequent examination showed that a calculus was impacted in the prostatic portion of the urethra. This could be felt by the finger passed into the rectum, and was thus readily dislodged and pushed back into the bladder. The urine was examined again, and found to contain not only the sediment mentioned before, but also hyaline and granular casts, and to be albuminous.

The patient was ordered to keep quiet in bed, was put on milk diet,