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LECTURES.

BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK: CLINICAL LECTURE
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Peri-Pachymeningitis. — GENTLEMEN: The case of the young man whom I bring before you first, this morning, is one of considerable interest, because it illustrates quite a rare variety of disease. I will not attempt to go into the history minutely, but will merely give you a few prominent points in regard to it. The patient was taken ill about twenty-one months ago, and for the last year has been under treatment by my assistant. He was a dyer by occupation, and his hands being exposed sometimes to the action of irritating substances, he had first a severe inflammation of one of them. Shortly after that he seems to have had some sort of an inflammation seated at the back of the neck and between the shoulders. While suffering from this he was taken to the Roosevelt Hospital, where it was supposed that he had spinal meningitis, and during his stay in the hospital what was thought to be an abscess formed near the spine, though it was never opened. After he came under the care of my assistant there was noticed a swelling located about the rhomboideus muscles, and presently a piece of dead bone was discharged from this point. It was inferred that the latter had come from the scapula, as crepitus could be detected in that bone.

Now the point of interest is that at the time of this inflammatory trouble there was complete paralysis of motion and sensation upon one side of the body, except the face, affecting the upper and lower extremities in an equal degree. At the present time, however, he seems to have entirely recovered from this. You observe that he walks as well as you or I can, and he grasps my hand with a force which convinces me (which he indeed says is a fact) that the affected hand is now quite as strong as the other. It is stated that partial loss of sensation continued for a year in the lower extremity (not so long in the upper), and there was more or less loss of motion for a year in both. What, then, must have been the diagnosis? From such a hemiplegia

¹ Reported for the JOURNAL.

as has been noted here we would naturally look for some lesion in the opposite side of the brain. But in this particular case we must not fail to take into consideration the fact that there was an inflammation which probably affected the nerves of the spinal cord upon the side on which the hemiplegia occurred. If the inflammation were outside of the cord and involved the dura mater outside, it would certainly be exceedingly apt to produce paralysis both of motion and sensation on the same side on which it was situated, and hence from the history I think we are forced to the conclusion that this has been a case of peri-pachymeningitis.

But why should this be so? In the first place there was an abscess in the upper dorsal region, and afterwards a piece of dead bone came away. This fact shows that there must have been an extensive inflammatory process, and there can be little doubt that this inflammation spread down the dura mater, and so involved the spinal nerves upon the same side. You no doubt remember the case of tumor of the cord which I showed you last week, and in that, you will recall, motion was lost or impaired on one side, while sensation was affected on the other side. This is the rule in tumor of the cord, and it is one of the diagnostic marks of such growths as well as of spinal meningitis. The former is a rare disease, but in the case now before us we have even a still more uncommon one. The treatment has consisted principally of the application of electricity, in the form of both the constant and the galvanofaradic currents, and as the patient seems to have made a complete recovery the case is interesting on that account also.

Progressive Muscular Atrophy. — Some of you will perhaps remember the very marked case of progressive muscular atrophy to which I called your attention some little time ago at the college, in which the patient had become reduced to a living skeleton. He was thirty-five, and the affection had commenced twenty-three years before the time that I presented him to you; yet notwithstanding the steady though slow progress of the disease he had enjoyed pretty fair health, had been able to marry, and had had children. To-day I have two more cases of the same affection to show you. The first is that of a man in advanced life. He is sixty-two years of age, and was formerly a porter by occupation. He was accustomed to lift very heavy weights, and, as he tells me, used frequently to lift a great deal more than there was any necessity for doing, simply in order to make exhibitions of his strength, of which he was not a little proud. We have, then, a history of excessive muscular exertion, and this seems to have been the origin of the disorder in this case, since we cannot get any account of exposure to cold, or of any other circumstance at all likely to give rise to it. The disease commenced four years ago, and the first symptom noticed was pain in the shoulder, which is, as a rule, the starting-point of the atrophy.

Afterwards the hands, and then the legs, became affected. You will notice with what great difficulty the man walks up and down stairs.

The other patient is our friend "Jim," who has been accustomed for several years to show himself before the medical classes at the hospital. To judge from his powerful build and the extreme breadth of his shoulders, nature has evidently intended him for an Atlas or a Hercules; but this wasting disease which we are now considering has shorn him of his strength. Notice him now as he takes off his clothing. A casual observer might not, perhaps, suppose that there was anything wrong with him, but if you will watch him carefully you will see that there is a decided awkwardness about his movements. As he stands erect now, what strikes the eye at once is the peculiar attitude of the man, — the very great projection of the abdomen, the hollowing of the back, and the throwing back of the shoulders. This is due to the marked manner in which the abdominal muscles are affected by the atrophy, so that their action is completely overcome by that of the *erectores spinæ*. When he lifts his arms you observe how the shoulders seem to widen out, and this is due to the action of the *serratus magnus*. In this patient is shown in a very striking way the different extent to which the various muscles are affected by the disease. Notice, for instance, the vast contrast between the deltoid (which is fully developed) on the one hand, and the biceps and triceps (which are markedly atrophied) on the other. Again, the muscular development of the hand is very good, while that of the fore-arm is exceedingly poor. In flexing the arm you see that the biceps is assisted by the action of the *pronator radii teres*. When we examine the lower extremities we find great wasting here also, the extensors being involved to a much greater degree than the flexors. All this shows that the disease has attacked isolated and particular muscles and sets of muscles. In the other patient now before us, however, its march has been more general. In the latter case I observe also some vibratory tremor. Here all the muscles of the fore-arm are particularly wasted, on one side a little more than on the other; and the *sterno-cleido-mastoid* is so small as to make it difficult to feel, being about the size of a small pipe-stem. In both cases the loss of power is proportionate to the loss of muscular substance. In the first patient, in contrast to the case of "Jim," the muscles on the posterior aspect of the lower extremities are better than those on the anterior, and this is very well shown by the much greater facility with which he rises from a sitting posture than the other. You can see the difference as both the men get up from their chairs at the same time.

Now let us see how these wasted muscles react with electricity, and it will be sufficient for our purpose to employ it only in the case of the first patient. You see that the *pectoralis major* reacts very well, while

the triceps, which is more atrophied, does so but poorly. The muscles of the leg react also, though but feebly, so we find that even in the most atrophied parts the muscles always respond to a greater or less extent to electrical excitation.

These two cases, taken in connection with the one which I showed you at the college, illustrate the disease and some of its variations in a very admirable manner. In the second patient whom we have seen to-day the muscular atrophy seems to have resulted from over-exertion and exposure to cold. The man was accustomed to work in a rolling-mill, and after violent exercise in a very high temperature he would go out into the cold air and lie down on the grass for the purpose of "cooling off." The disease commenced twelve years ago, and the first thing that he noticed was a weakness about the back, while the first muscle involved was the biceps. This, then, was an exception to the great majority of cases, in which it commences in the muscles about the shoulder, as in the first case. Nature, however, always begs leave to be excused from dogmatism, and also to differ from the books occasionally. Another exception to the general rule about one of these cases is that in the first patient the atrophy is more marked in the fore-arms than in the hands. The slow progress of the disease is well shown by the fact that in one of the cases it has lasted four years and in the other twelve, while in the one you saw at the college it commenced twenty-three years ago. In the first case there has been decided improvement of late under the treatment employed (the persistent use of electricity), so that the patient is considerably better than he was a year ago. In the second case the disease seems to have been arrested, and remains stationary. The man has been under my observation for at least five years, and during that time it has neither progressed nor has there been any improvement. In the third case (the one that has lasted twenty-three years), on the other hand, the affection has been from the first, and still continues, gradually progressive.

ON STRAPPING THE AFFECTED SIDE IN CASES OF ACUTE PLEURITIS.¹

BY J. C. GLEASON, M. D. HARV.

FOR some time past I have been in the habit of strapping the affected side, so as to limit motion and secure the greatest possible rest in all cases of acute pleurisy, pleuro-pneumonia, etc., in which severe pain, resulting from the respiratory movements, comes in as a leading symptom.

To illustrate this practice I will briefly describe two cases, giving only such principal facts as are necessary for my present purpose:—

¹ Read before the Plymouth District Medical Society, October 10, 1877.