THE GAINS DERIVED FROM THE USE OF THE LARYNGOSCOPE.

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MR. NORTON (*vide JOURNAL* for June 20th) might at first sight be thought to be speaking only common sense when he asserts that the occurrence of paralysis of one side of the larynx, due to pressure on the pneumogastric or on the recurrent laryngeal nerve of the opposite side, is apparent rather than real. It can, however, be shown, by the anatomical knowledge which he invokes to prove Dr. George Johnson wrong, that his assumption is not only incorrect, but that it is also exactly contrary to what one would expect after carefully considering the attachments, the nerve-supply, and the physiological action of the muscles of the larynx. Nor do I think Mr. Norton has been more fortunate in his description of the laryngoscopic image of such a case, or in his explanation of the distortion.

Taking the left recurrent laryngeal nerve as the one pressed upon (this being most frequently the case), we see with the laryngoscope that, in phonation, the right cord approaches more or less accurately to the median line, and, as Mr. Norton correctly says and explains, that it is rather tense than otherwise; the left cord, however, is seen not only not to approach, but to have very frequently a distinctly curved appearance, the concavity being directed inwards. In inspiration, the right cord is well abducted, but the left remains immovable and retains the curve. The exact position of the left cord may be generally described as at about one-third or one-fourth the proper distance from the middle line that it would be were its adductive action perfect. The explanation of the impaired abduction is, of course, at once found in the paralysis of the left posterior crico-arytenoid muscle, the sole abductor of that side, and supplied only by the inferior laryngeal nerve. The adduction is less impaired, because, doubtless, some filaments of the superior laryngeal nerve pierce some of the abductor muscles; but why is the left cord so frequently, nay almost invariably, seen to be curved? Our answer will be found by a consideration of the peculiar attachments and physiological action of the arytenoideus proprius. The crico-thyroid muscle, no longer counteracted by the thyro-arytenoid, holds the vocal cord of the affected side in a state of tension; but, the left lateral crico-arytenoid and the fibres of the arytenoideus attached to the left cartilage being also affected, the left cord does not approach in phonation, whilst the fibres of the arytenoideus attached to the right cartilage draw the posterior part of the left cord somewhat towards the median line, and so give a curve to the affected side.

Mr. Norton has admitted that there is increased tension of the cord on the unaffected side, and it is not difficult to understand how weakened innervation of one side of a muscle so intimately connecting and acting on both cartilages as the arytenoideus will cause a want of approximative power of the right cord as well as of the left. I have myself often seen such a condition. The voice of such a patient may be described as both hoarse and shrill. It is *hoarse*, because, as I have stated, there is always an interval between the cords, not, as Mr. Norton says, "because the two cords are not adapted for the same pitch of the voice", for a matter affecting the pitch has nothing to do with the presence or absence of hoarseness. The voice is *shrill*, because there is an undue state of tension of both cords and an impaired and unequal power of modulation.

The foregoing remarks were written before reading Dr. George Johnson's paper, which, owing to absence from town at the time of issue in the *JOURNAL*, escaped my notice; but they still hold good as to the laryngoscopic appearance and explanation of unilateral paralysis of the larynx. I have since perused Dr. Johnson's article with great interest; and he has been so kind as to give me his explanation of the cause of the bilateral paralysis in his case and that of Dr. Bäumlér, where only one pneumogastric and recurrent were pressed upon. It cannot be for an instant supposed that two such careful observers were mistaken in diagnosis; and Dr. Johnson's theory of the condition is no doubt as correct as it is original. The interesting point to note in consideration of his view is that, in both instances, the pneumogastric was extensively implicated; and, if further observation of other cases should confirm the fact now placed on record by Dr. Johnson, we shall have an additional aid in our diagnosis of these affections. If the recurrent laryngeal nerve only be involved, we may expect to see no more paralysis on the unaffected side than I have indicated as usual in such cases; but in cases where there is complete bilateral paralysis of abduction, and the other evidences seem to point to pressure on only one nerve, we shall be justified in concluding that the pneumogastric is injured as well as the recurrent nerve.

ABSTRACT OF LECTURES ON THE SURGICAL TREATMENT OF ANEURISM.

Delivered at the Royal College of Surgeons of England.

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LECTURE II.

THE second and third of these lectures treated of aneurisms in the groin and in the thigh, affecting the external iliac, common femoral, superficial femoral, profunda femoris, and their branches.

The lecturer first observed upon the different vessels which might be affected in inguinal aneurism, and on the different forms which such aneurisms assume; also on the differences in the collateral circulation after the ligature of the external iliac. There are cases in which that operation is performed strictly after the method of Anel; the artery being tied in the neighbourhood of the sac, no branch intervening between the ligature and the tumour, and the coagulum which fills the aneurism being continuous with that which fills the lower or distal part of the artery. In cases, also, where the collaterals (the epigastric and circumflex ilii) open out of the sac, they often become filled with the coagulum of the aneurism, and the state of the collateral circulation is the same. When the aneurism affects the common femoral, the epigastric and circumflex ilii usually remain open, and an arch of collateral circulation opens into the artery above the tumour; but, when the superficial femoral is the artery affected, the profunda itself forms one of these collaterals, and the anastomosing circulation is sometimes so powerful as to reproduce the pulsation of the aneurism. Instances of this were quoted from a case under treatment in St. Thomas's Hospital, from one mentioned in Mr. Caesar Hawkins's recently published work, and from a case operated on by Sir B. Brodie, and related by Mr. Prescott Hewett in the *Medico-Chirurgical Transactions*. Then the history of the operation on the external iliac was briefly related, and its results estimated from the statistical work of Norris, and from the records of recent hospital practice, embodied in a table compiled by the lecturer. The mortality seems to have been about one-fourth, and there has been a small proportion of recoveries with loss of the limb.

The next question was as to the desirability of operating on the common femoral when possible, instead of on the external iliac. The opinion of Mr. Erichsen and other surgeons—that this operation is an unjustifiable one, terminating almost uniformly in death from secondary hæmorrhage or gangrene—was combated from the experience of Ramsden, Mott, the surgeons of Dublin, and Mr. O. Pemberton, all tending to show that the operation has been, as far as known, a fairly successful one, though the cases are as yet too few to enable us to compare its success with that on the external iliac. It was shown, however, that the variations in the place of origin of the profunda cause a good deal of uncertainty and danger in the operation. The conclusion seems to be, that the operation on the common femoral may be preferred to that on the external iliac when, in consequence of the patient's obesity, the latter operation will be unusually severe or dangerous; and that, in any case, the judgment of a surgeon who prefers it to that operation is not to be impugned; but that there is no reason for preferring it to the ligature of the superficial femoral in popliteal aneurism, as some of the Irish surgeons do.

The next topic was the success of pressure in inguinal and femoral aneurism. The history of the method was traced, and an attempt made to estimate the relative value of digital and instrumental pressure. Cases were quoted showing the very rapid cure sometimes obtained by well applied digital pressure in femoral aneurism. The experience of our hospitals in the use of pressure without anaesthetics in aneurism in the groin and thigh has hitherto been very unfavourable, the great majority of such attempts having failed. On the other hand, several cases have been treated successfully by the application of "rapid" pressure under anaesthesia. Leaving the latter subject for the following lecture, the lecturer suggested that the results of compression in hospital practice might be much improved by more careful supervision of the persons who compress, or of the instrument by which the pressure is made.

The old operation by laying open the sac and tying both ends of the artery has been practised in ruptured and wounded aneurisms in the thigh comparatively often and comparatively successfully in our hospitals. A series of cases were referred to to show this. This is probably the best practice when aneurism has burst either subcutaneously or through the skin, although a case was referred to, under the care of Mr. Hovell of Clapton, where the Hunterian operation was successfully performed on a femoral aneurism which had burst through an ulcerated opening in the skin.

The remainder of the subject was reserved for the following lecture.