

pancreatic lesions in two of the above cases, in which the gland was simply atrophied without any other microscopical or macroscopical change.

In only five of the above fourteen cases, therefore, does there appear to be a probability of the disease being due to a pancreatic lesion. In face of the strong experimental evidence, it does appear very probable that diabetes is sometimes due to pancreatic disease when extensive changes are found in the gland, as in one of these five cases—Case 1 of the above series. (Whether the changes in all of the other four cases were so extensive as to give rise to the disease is open to criticism.)

The above cases also show that "diabetes with wasting" is not necessarily connected with a lesion of the pancreas,<sup>9</sup> as in five of the fourteen cases there was marked wasting during life, but the pancreas was normal post mortem.

P.S.—Since the above report was written I have examined the pancreas in another case and found extensive changes:—

CASE 15.—C. D., aged thirty-four (admitted as an in-patient at the Manchester Royal Infirmary, under the care of Dr. Leech, to the kindness of whom I am indebted for permission to report the case). Considerable wasting. History of thirst and diuresis for four weeks. Urine 1029; large amount of sugar present; acetone and diacetic acid present; trace of albumen. Death from coma on the second day after admission. Necropsy: Pancreas small; weight 1½ oz. The gland, especially at the head, was exceedingly firm and hard. Microscopical examination showed most extensive cirrhosis.

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## PERIPHERAL NEURITIS AFTER MEASLES.

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THE features of exceptional interest in the following case are these: (1) peripheral neuritis occurring shortly after measles, and (2) a second attack of neuritis after influenza, some time after recovery from the first attack.

A general servant, thirty-one years of age, was first seen by me at the dispensary of the Royal Infirmary on Oct. 1st, 1893. She was suffering at that time from peripheral neuritis, not severe, though causing her much pain, but quite typical in its characters. She had measles (for the first time) in the spring of 1893 and was confined to bed for a few days. She then began to do some housework, but not so much as she was accustomed to, until, after a week—she thinks after washing—pains began in the hands. (There was no pain above the wrists in this attack.) The pains remained severe for a couple of months. She then went home to rest, in May, and in August following, she was quite well. In September she was in bed for a day with influenza, and, a day or two after this, pains in the hands began again. (The medical man who attended her while she lived with her mistress has been kind enough to give me some important information. He says that the outbreak of measles in the spring, and of influenza in the following autumn, affected the household generally, so that the patient's case was not on either occasion an isolated one, and there was no question as to the diagnosis. The medical attendant also tells me that, though the patient was only one day in bed with influenza, she was so ill that she ought to have rested longer.) The symptoms, as observed by me at her first and frequent later visits to the dispensary, may be briefly stated. They were confined to the upper limbs, the pains being felt between the elbows and finger-tips on both sides of the body. There was no characteristic wrist-drop, but power was considerably diminished, so that the patient found it difficult to button her dress, to brush boots, &c. There was tingling pain in the affected parts. This was specially severe at night, and was aggravated by any attempts to work with the hands. Movement of the wrists caused pain in the digits. Tactile sensation seemed to be slightly impaired and conduction delayed. There was no obvious muscular wasting. There was no pain on pressure of the digits, and pain was not specially severe in the palm. In the right upper extremity there was local tenderness on pressure over that part of the radius where the radial nerve might be expected to turn round the bone. On pressing in the forearm over the

median nerve there was pain in the thumb and outer fingers, but not locally. There was some tenderness in the fleshy mass between the first and second metacarpal bones. The right hand was worse than the left, and in the former the middle and ring fingers suffered more than the remaining digits. On the left side pain was produced by pressure between the first and second metacarpals, and pain extended down to the fingers on pressing the ulnar nerve behind the inner condyle. There was no tremor; the grip was weakened; at times, it was said, there was slight swelling of the hands; no changes in the nails or skin had taken place. When the electrical conditions were investigated, it was found at first that there was considerable tenderness of the skin, which interfered to some extent with the examination. The reactions of the extensor muscles were altered both to galvanism and to faradism. It may be added that the knee-jerks were normal; that the patient's health before she had measles was good; that no definite history could be obtained of preceding attacks of specific fevers; and that the patient is practically an abstainer from alcohol, though she took some for a time during convalescence from influenza. On Nov. 11th (about two months after the onset) pain was more severe than at any preceding time in the course of the second attack. After that, however, improvement took place. The treatment ordered was the use of the continuous current twice a week, with a liniment consisting of extract of belladonna and glycerine to be applied to the painful parts. By the beginning of December power was returning to the hands. The latter no longer pained her during the day, and she did not now waken with the pain in the night time. Improvement continued, and at the time of the last note, Dec. 27th, she was practically well, except that the two fingers, which were most severely affected throughout, still gave her some trouble. Though, in the second attack of neuritis, the pains extended further up the limbs than in the first, the patient affirmed that the earlier illness was the more severe of the two. Pain, muscular weakness, and the tendency to swelling of the hands were all more marked in the neuritis after measles.

*Remarks.*—Peripheral neuritis as a sequel of measles is exceedingly rare. Dr. Gowers, in his account of paralysis after measles,<sup>1</sup> does not even allude to multiple neuritis, unless, with the late Dr. Ross, we are prepared to look upon acute ascending paralysis as a neuritis; two or three cases of this kind have been observed. Dr. Bury<sup>2</sup> says that "about sixty cases of paralysis developing during the course of, or in early convalescence from, measles are to be found recorded in medical literature. The large majority of these were of cerebral or spinal origin, and as regards the remaining cases of paralysis some were probably due to a multiple neuritis, although a study of the clinical histories does not yield absolutely certain evidence of the existence of neuritis." M. Lop,<sup>3</sup> in two valuable articles, "Des Paralysies Morbilleuses," divides these palsies into two categories—encephalic and myelopathic—thus not recognising a neuritic type. The nervous sequelæ of measles were discussed at a meeting of the Royal Medical and Chirurgical Society<sup>4</sup> on Nov. 28th, 1893, but none of those who took part in the discussion seem to have met with any case at all resembling the one now under consideration. It is of great importance to note that, in the case just recorded, two very similar attacks of neuritis followed two acute diseases which differ much in their characters. It would be interesting to ascertain whether other fevers (scarlet fever, for instance) would have a similar sequel in this patient; but, as has been already remarked, no history of other febrile diseases in the past could be obtained; so that for information on this point we must wait. The distribution in this case of the pain and muscular weakness scarcely corresponds with that of any well-known type of peripheral neuritis, though certain cases which have been recorded as following enteric and relapsing fevers may, in some aspects, have presented a resemblance to the present one. Multiple neuritis after measles is so excessively rare as to suggest a special predisposition on the part of the nerves. In this light it is remarkable that the attack which followed influenza—a disease known to be capable of exciting peripheral neuritis in its most aggravated as well as in its milder forms—was so slight as to be considered by the patient less troublesome than the preceding attack.

<sup>1</sup> Diseases of the Nervous System, second edition, vol. ii., p. 898.

<sup>2</sup> Ross and Bury: On Peripheral Neuritis, p. 248.

<sup>3</sup> Gazette des Hôpitaux, September, 1893, pp. 995 and 1015.

<sup>4</sup> THE LANCET, Dec. 2nd, 1893. Numerous other references to the literature of post-morbillar paralysis will be found in Lop's articles and in Ross and Bury's treatise.

<sup>9</sup> Attention has also been drawn to this point by Lépine and others.

## INTRA-LARYNGEAL THERAPEUTICS, WITH NOTES OF TWO CASES.

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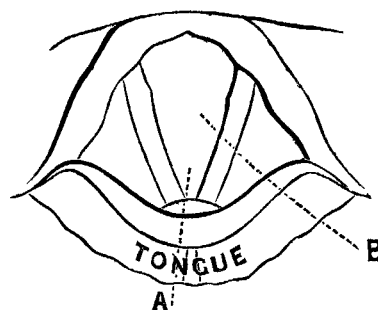
LIKE everything else under the sun, the idea of the treatment of diseases of the respiratory tract by the direct application of drugs to the interior of the larynx is not a new one; but it is only within the past eight or ten years that it has been practically employed, and that in Edinburgh and Vienna chiefly. At first intra-laryngeal injection was chiefly made use of in the treatment of phthisis, either with the view of applying antiseptics directly to the lungs, or of killing the bacillus, or of alleviating the troublesome cough. If with the former intention, it is certainly highly utopian.

The latest contribution to the literature of the subject from the pen of my distinguished teacher, Professor Grainger Stewart,<sup>1</sup> shows the value of this plan of treatment in bronchiectasis, and I believe that this is the disease which is likely to be most influenced by intra-tracheal treatment. By the old-fashioned methods of giving creasote or guaiacol by the mouth or by inhalation, patients are made ill before one is able to do them much good, for it cannot be doubted that some of the attacks of sickness and vomiting which occur in the course of the treatment of bronchiectasis by the persistent use of creasote are due to poisoning, and at the best one may only be setting a thief to catch a thief, for some of the ptomaines due to decomposition of the secretions in the dilated bronchial tubes must have entered the circulation. By applying creasote, guaiacol, or other antiseptic directly to the interior of the trachea, whence it is certain to trickle down into the bronchial tubes, one may be able to prevent to a great extent the formation of putrefactive bodies, and it is my belief, founded upon experience, that this may be accomplished, and that by passing down antiseptics the patient can be prevented from giving himself mild attacks of septicæmia, which not only wear out his strength, but may even cut him off; and he is being placed on the high road towards recovery. The most probable cause of bronchiectasis is an atrophy of the walls of the bronchial tubes. The resulting dilatation is not a final one, but goes on increasing unless checked, and nothing so much tends to aggravate the condition as the filling up of the cavities and decomposition of the contents, with the production of foul gases. Now, if the secretion can be lessened, and at the same time the cavities kept comparatively sweet, the tissues are given a chance of regaining a certain amount of tone, while at the same time those septicæmic attacks already referred to are prevented, while also the comfort of the patient is increased by diminishing the disagreeable odour and by relieving the irritating cough so frequent in bronchiectasis. Drugs injected into the trachea, while exerting a local action in the lung and bronchial tubes, find their way into the circulation, as I have proved in one of the cases mentioned hereafter. A solution of menthol and guaiacol in olive oil so administered was detected in the urine in two hours, or, rather, the menthol was found; but the guaiacol could not be discovered, although tested for on several occasions. This points to guaiacol being broken up in the kidneys into some body which does not give the reaction. One can hardly hope to obtain brilliant results by the intra-laryngeal method in cases of phthisis. Antiseptics so used have little effect upon the course of the disease in general; but for the alleviation of the cough a 10 per cent. solution of menthol in olive oil, or in one of the pure preparations of the higher paraffins, is often of great service.

So much want of knowledge exists as to the process of intra-laryngeal injection that one is excused for giving a short account of the manner in which it is carried out. I remember a practitioner telling me that he had a patient whom he thought a good case for trying this method of medication, so he called in a medical consultant to see the patient, and if he considered it a fit case for the intra-laryngeal plan of treatment he might show my friend how it was carried out. To his astonishment the consultant said it might choke his patient. Although at first sight it appears to be a difficult operation, it is really a very simple one and easy of perform-

ance, only requiring a little boldness. I have now performed it nearly a hundred times, and on no occasion have my patients vomited. I get my patients to sit facing a good light and ask them to take hold of their tongues and pull them well forward, and to take a few deep breaths. The latter not only fill the chest, but likewise render the throat less sensitive. I either stand or sit not quite opposite my patient, but a little to my right. The syringe having been previously filled and rendered free from air by forcing a little of the fluid along the tube, the nozzle meanwhile being turned upwards, I then pass the point of the syringe, not over the middle of the tongue as at A, but in a slanting direction as at B. (See Fig. 1.)

FIG. 1.

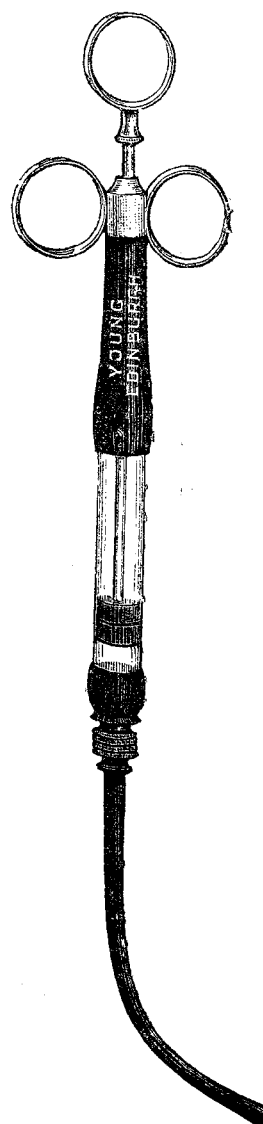


The syringe is to be passed in the line of B. (Note, the drawing has been turned the opposite way from which it is generally shown; it thus better illustrates the point intended to be emphasised.)

In this way I avoid the tip of the epiglottis, which is so sensitive. I endeavour to just clear the tongue and strike a line which would pass straight along the middle of the dorsum of the tongue, and when extended backwards would touch the back wall of the pharynx. In this way I reach the glottis and gently but firmly force the nozzle

of the syringe into the trachea at the moment the patient takes a deep inspiration. The patient soon gets to know when the syringe has gone to the right spot. I now move the piston and the fluid drops slowly into the larynx. One must catch the glottis just as a deep inspiration has been taken, for soon the patient wants to inspire again, and with the glottis plugged this is impossible; but in every case I have found the time sufficient in which to inject one fluid drachm of oily fluid, and if it is desired the operation can be repeated even five times at a sitting without evil effects; in fact, in no case have I found the least discomfort follow. The first time of applying a 5 per cent. solution of cocaine hydrochlorate may be painted over the throat to render it anæsthetic, but the after-effects are dreaded by the patient who has once had this treatment, and if the syringe be boldly handled the patient experiences no discomfort. It is the shaking hand which causes tickling and so retching. It is like swabbing out the throat. The experienced laryngologist never causes his patient to vomit: it is only the beginner who is afraid to "lay on" who does that. At first it is perhaps also advisable to employ the laryngoscope, but in using it a single movement of the patient renders all dark, and as soon as confidence is gained it may be given up. The syringe I employ is one which was procured for me from Messrs. Archibald Young and Son, of Edinburgh, and which is known in Edinburgh as Beehag's. The barrel is of glass, and the mountings

FIG. 2.



Beehag's intra-laryngeal syringe.

<sup>1</sup> Brit. Med. Jour., June 3rd, 1893.