CASE 2.—Dr. Russell[1] has published a short account of a case formerly under my care. This patient was a man aged sixty-eight, who had been ill for eighteen months. He had no cardiac disease, and there was no history of rheumatism. He could assign no cause for his illness. His urine contained a trace of albumen with granular and blood casts, blood-corpuscles, and epithelium. He presented no signs of dementia.

CASE 3.—My third case is that of an old man aged eighty-seven. He is fairly well nourished but anæmic. He has enjoyed good health, and the only illness he can call to mind is an attack of congestion of the lungs four years ago, since which he has been liable to bronchitis, for which he applied for advice. There is no obvious dementia, he answers questions rationally and correctly, but is a little deaf. The tongue is protruded perfectly well. There is no cardiac murmur. The choreic movements are not constant, and chiefly affect the arms, though the head and legs are not free. The muscles which appear to act most violently are those connecting the trunk with the upper extremity, especially the scapular muscles, which jerk his arms till his back aches. The muscular movements are so violent as to throw him about in his chair, if he is standing to make it difficult for him to remain erect, and when sleeping to awaken him. At the present time (June 25th, 1884) the disease has lasted about five weeks. His urine contains a trace of albumen; he has never had acute rheumatism, and has no evidence of valvular disease of the heart, though there is probably some dilatation with atheromatous degeneration of the arteries. He has an enlargement of the head of the first and second metacarpal bones of the right hand, and has suffered from "rheumatism" in all his joints, but never was laid up with it. He attributes his illness to getting wet, which he was very liable to in his work as a gardener. On inquiry, he does not admit that he has had any trouble, and seems of a cheerful disposition. He has never had anything like a fit, or been paralysed. He says he has always been temperate, and I have no reason to doubt his statement. The twitching first came on in his right shoulder. He can pick up a pin fairly well, and says he has no difficulty in buttoning his clothes.

CASE 4.—Dr. Russell[2] has also related the case of a lady, aged seventy-seven, who recovered after an illness of about three months. In this patient the chorea was mainly left-sided. There was no dementia; the heart was normal, and she had never suffered from rheumatism or previously from chorea. The treatment employed was the sulphate of zinc.

CASE 5.—Mr. C. J. Devis[3] has reported a case in a man, aged seventy-nine. The chorea was confined to the left upper extremity and the left side of the face. The patient was demented. There was no cardiac murmur or history of rheumatism. There was a trace of albumen in the urine. He died while under observation after the chorea had lasted a month, but no autopsy was made.

CASES 6 and 7.—Dr. Wharton Sinkler[4] believes this disease is rare, but is mistaken for senile trembling or paralysis agitans. He gives two well-marked cases in a male and female aged eighty-six and eighty-two respectively. One recovered in a few months, the other remained in the same state after two years and a half. Organic heart disease was present in both. There was no dementia in either case.

CASE 8.—Dr. M. Bacon[5] has published a case of chorea in a female suffering from chronic mania and the inmate of an asylum. The disease lasted four years—that is, until her death at the age of sixty-one.

CASES 9 and 10.—Dr. Graves[6] mentions two cases: one an apothecary in Dublin, aged seventy; and another which had been communicated to him by Dr. Patton of Tanderagee. Of the former case he gives no details, except that "it was very severe and lasted many months." Of the second, he tells us that it had continued three years at the time of his report; that the patient was a woman aged fifty, who had had family troubles; that the attacks were intermittent, but, when present, did not leave her, even during sleep. Fatigue, anxiety, and the "changing of the moon" were said to aggravate her attacks.

CASES 11 and 12.—Charcot,[7] in his well-known lecture, points out that this condition differs essentially from the senile trembling to which the name "senile chorea" is sometimes improperly given. In the latter the movements are simply oscillatory, and have none of the gesticulatory character of choreic movements; usually, too, the trembling is limited to the head. Both his patients were more or less demented. He regards the chorea as due to emotional causes, and not associated with rheumatism or heart disease. He thinks it is incurable, but does not usually endanger life. Of his two cases one had existed twelve and the other eleven years, both patients being the same age, seventy-one.

To some extent Professor Charcot's views are open to modification in the light of our more extended knowledge of the subject. For example, we must abandon the belief that this disease is always associated with dementia. It is also very dubious if we can attach any high degree of importance to emotional causes in the origin of this affection, while the recovery of Dr. Russell's patient and the great improvement which has taken place in my first case make the prognosis much less absolutely unfavourable than Charcot taught. Its association with heart disease in both of Dr. Sinkler's cases, and in one of mine, must also be allowed to qualify Charcot's statement that no such relation appears to exist, though it may well be that the association has no special significance. Yet from what I have seen of this disease, and from the extreme probability that advanced degeneration of the vascular system was present in all my cases, I am inclined to believe that the pathology of this affection will be found to be some actual structural change, such as small hæmorrhages in the corpus striatum, and that it is not merely a functional derangement. In the absence of any post-mortem evidence whatever, such an opinion is of course wholly speculative.

The diagnosis presents no difficulty to anyone who is aware of the existence of this form of chorea; the character of the movements is quite typical, and if it is ever confounded with senile trembling, it must be from ignorance of the fact that chorea does occur in advanced life, and consequent unwillingness to accept a view which is thought to be unsupported by authority. My third patient suffered so intermittingly that at his first visit I observed nothing, and was told nothing to direct my attention to anything but the state of the chest, but on his next appearance the movements at once attracted my attention. In Mr. Taylor's patient I noticed a similar indifference on the part of the patient to the movements, which he appeared to regard rather as an awkward habit than as anything for which he needed medical advice.

I regard the disease as rare. The cases seen by Dr. Russell and myself are all I have heard of in this town, and from inquiries I have lately made there is no case at our workhouse infirmary where chronic nervous affections of all kinds are to be found. With respect to treatment, I have not much to say that is of value. I have found the bromide of potassium of some use, and in Dr. Russell's case, which recovered, sulphate of zinc was used. In all of my cases the general health has been very bad. For such feeble old people cod-liver oil is one of the best remedies.

Birmingham.

[1] A Case of Senile Chorea, Med. Times and Gaz., 1878, vol. ii., p. 627.
[2] Note on a Case of Chorea in an Aged Person, followed by Recovery, Med. Times and Gaz., 1878, vol. i., p. 459.
[3] Case of Chorea in the Aged, Med. Times and Gaz., 1879, vol. ii., p. 447.
[4] Chorea in the Aged, Journal of Nervous and Mental Diseases, July, 1881.
[5] Chorea at an Advanced Period of Life, Journal of Mental Science, July, 1880.
[6] Clinical Lectures on the Practice of Medicine, 2nd edit., vol. i., p. 537.
[7] On Chorea in Old People, Med. Times and Gaz., 1878, vol. i., p. 245.

TREATMENT OF PERFORATING ULCER OF THE FOOT.

BY FREDERICK TREVES, F.R.C.S.,
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THE so-called perforating ulcer of the foot, when it appears in association with locomotor ataxy, or the conditions somewhat vaguely known as sclerosis or tabes, is the outcome of certain purely local causes acting upon a part whose condition has been injuriously influenced by a central nerve disturbance. There are reasons for believing that the nutrition of certain parts becomes obscurely perverted in the course of the nerve malady, and that the foot affords one example of such perversion. Moreover, the sensation in the integument of the sole commonly becomes dulled; and if to these conditions be added the effects of pressure upon the skin, it would appear that the chief factors in the production of perforating ulcer are present. Of these the disturbance of nutrition is probably the most important; for the pecu-

liar ulcer may be seen upon the feet of patients who, although they present certain of the symptoms of locomotor ataxy, do not yet experience any perverted sensation in the limb. It would seem, moreover, that there is nothing peculiar in the pressure to which the part is subjected. It is the pressure incident to standing and movement. The sore is often met with quite early in the course of the cord affection, and at a time when the patient's gait is steady and regular, and when he walks like the normal man.

The clinical history of the ulcer is briefly this. At a spot upon the sole of the foot upon which pressure bears a corn appears. This spot is very commonly over the metatarso-phalangeal joint of the great toe, or over the corresponding joint of the little or on the pulp of the great toe. The corn increases, and, from the pressure that it exercises upon the soft parts beneath it, some inflammation of an insidious type follows. Suppuration then appears beneath the corn, and, spreading in the direction of the least resistance, advances into the soft parts of the sole, moving towards the bone. It may be that the column of soft parts compressed between the corn and the bone beneath which it lies may perish almost *en masse*, as would appear to be the case with the tissues in the acute bedsore of spinal origin. Be this as it may, this at least is evident, that when at last the pus finds an escape through the thickened skin about the corn a sinus is revealed that will be found to extend already to the bone. The patient continues to walk upon the foot, and around the orifice of the sinus or the margins of the ulcer the epithelium continues to heap itself up. This thickening of the skin is always considerable. The sore appears to be set upon a mound of hardened, thickened integument; and it thus happens that the depth of the ulcer or the length of the sinus is greatly increased. Bone may be lying bare at the bottom of the sinus. In the most chronic cases the so-called perforating ulcer becomes simply a persistent intractable sinus, surrounded by an areola of greatly thickened skin, and attended by a varying amount of pain. In such a condition it may prove a great hindrance to locomotion, and be a cause of lameness in cases where an ataxic gait has not yet developed. In other instances the pressure exercised by the thickened skin about the sinus tends to encourage an increase in the sore, or the parts may become the seat of a slough comparable with that met with in bedsore. The progress of the case will vary with the advancement of the nerve symptoms and with the ability of the patient to walk. The ulcer probably causes the most serious inconvenience in the most chronic cases. In such cases it is a source of pain, it impedes locomotion, it interferes with the pursuit of any occupation involving much standing, and is often the only, or at least the main, cause of the patient's lameness. In these instances the ulcer assumes for a while an importance in excess of that attending the nervous phenomena, and for months or years in the course of a given case it may be the only symptom that appears to clamour for treatment. It now remains to consider upon what lines such treatment should be directed.

In the first place, it may be said that these u cers, except when of unusually severe character, may be healed without other especial treatment than that of absolute rest. The rest, however, must be very prolonged, and will in any case probably extend into several months. It unfortunately happens, moreover, that the ulcer so cured will reappear when the patient discontinues the treatment and once more uses the foot. It would seem to be distinctly unadvisable to enforce prolonged rest upon a patient whose general health is not seriously impaired, especially when such action can afford but temporary relief to the trouble for which he seeks assistance. Many individuals suffering from perforating ulcer are still able to follow an employment, and but for the ulcer many could follow very active and even arduous occupations. Messrs. Savory and Butlin in their valuable monograph upon this affection in the Transactions of the Royal Medical and Chirurgical Society[1] fully recognise this difficulty, and suggest that the patient should use an artificial "bucket leg," so that the foot may be kept from the ground without absolute confinement being necessary. This course, if adopted by patients of the humbler classes, may be a very grave inconvenience, and would, moreover, in those who are actually ataxic, add to the difficulty of progression. Failing relief by means of rest, the advice most generally given by surgeons is that the part of the foot involved in the sore should be forthwith amputated.

[1] Vol. liii., p. 384.

Mr. Erichsen, in his last edition (1884) of his "Surgery" merely observes, "the treatment consists in amputation of the affected part." Mr. Bryant, in the fourth edition of his manual, endorses Mr. Hancock's conclusions upon this subject: "When once perforating ulcer of the sole of the foot is established and recognised, it is better at once to remove the whole of the metatarsal bones either by Chopart's, Syme's, or Pirogoff's amputation." With regard to this treatment there is, in addition to any objection that may attend amputation generally, the grave disadvantage that after the part has been removed the sore will return in the stump. The conditions that produced the ulcer in the foot are still operating, and by like agencies cause the re-appearance of the disease after the amputation. Messrs. Savory and Butlin well express the therapeutic position of this measure in the following words:—"With regard to treatment, it cannot be said that by any means at present known there is a fair prospect of permanent cure. In too many cases after operation, whether excision of the soft structures affected or of the diseased bone, or amputation of a toe or of a portion of the foot, the disease has gradually returned in some neighbouring parts, so that the extreme measure is at best a doubtful one."

Such being the position of things, I would venture to draw attention to the following plan of treatment, which, in the two cases in which I have as yet tried it, may be considered to have met with a degree of success. On examining these ulcers it is obvious that the dense rigid ring of heaped-up epithelium that surrounds the sore or sinus forms a very grave bar to healing. The ulcer could never heal so long as its margin is set in an annular induration that prevents an approximation of its edges and an opportunity for the display of the healing process. Even if the ulcer were to become filled up with granulations its final closure would still be a matter of considerable difficulty, since the skin, that takes so active a share in the healing of such lesions, would be seriously hampered in its activity. The plan alluded to is this: The patient is confined to bed and the sole of the foot is kept continuously poulticed with linseed meal. This causes the epithelium to soften and swell up, so that at the end of twenty-four hours the ring around the sore appears as a very prominent softish white mound. All this redundant epidermis is then shaved away with a scalpel, and the poultice is reapplied. At the end of another twenty-four hours the deeper layers of epithelium that were not affected by the first poulticing have become swollen and prominent. They are in turn cut away. The poultice is again applied and the scalpel used day by day, until the whole of the epidermic mass has been removed. This object will be effected at the end of about ten or fourteen days. By this time the skin about the ulcer will, as a result of the continued poulticing, have peeled off in a thick white layer, and around the sore will be nothing but thin fresh pink epidermis, looking active and healthy. The ulcer in the meantime will be found to have cleaned, and by the loss of its cutaneous boundary will appear less deep. The poultices are now discontinued, and to the sore is applied a paste, of the consistence of thick cream, composed of salicylic acid and glycerine, to which is added some carbolic acid in the proportion of ten minims to the ounce. This paste is applied on lint, and is quite painless. The ulcer soon heals, and when the patient gets up he is instructed to wear a thick pad of felt plaster over the spot, with a hole in its centre that corresponds to the scar of the recent sore. This plaster should be always worn. As one objection to this measure it may be urged that, although pressure may be taken off one part of the sole, an ulcer may appear at some other spot where pressure has effect. So far as my two cases go, this result has not yet happened; and it is to be noted that, although a large area of the sole is normally exposed to pressure, these ulcers have a tendency to appear only in certain spots. The patients should also be instructed to pay great attention to the cleanliness of the feet, to wear well-fitting woollen stockings and easy boots.

CASE 1.—A man, aged thirty-seven, was admitted into the London Hospital under my care on May 9th, 1884. He had a perforating ulcer of the sole of the usual appearance, over the metatarso-phalangeal joint of the third toe of the right foot. The ulcer extended down to the bone, which was, however, not bare. He had been under the care of my colleague, Dr. Ralfe, for locomotor ataxy. He suffered much from lightning pains in both legs, and there was an absence of patellar reflex on both sides. The ulcer has existed for three years, and has resisted all treatment. He is a cigar maker by trade, but as his employment requires

much standing he had not been able to follow it regularly owing to the pain caused by the ulcer. The treatment by poulticing was commenced on May 12th. By May 28th all the thickened epidermis had been removed, and the salicylic acid paste was applied. On June 11th the patient was discharged with the ulcer entirely healed, and with a disc of felt plaster applied to the part.—Oct. 10th: The patient has regularly followed his employment since his discharge. The ulcer shows no relapse, and there is no indication of corn or ulcer on any other part of the sole. At one time since his discharge the patient left off the felt plaster, but the site of the ulcer became sore, and he was obliged to take to the felt again. The foot is now entirely free from pain, with the exception of the occasional lightning pains above referred to. In this instance an ulcer that had lasted for three years was cured in four weeks.

CASE 2. — The patient is a gasfitter, aged thirty-eight. He was admitted on Aug. 12th, 1884. He had a perforating ulcer of the usual kind on the plantar aspect of the left great toe. It extended down to the bone, which was, however, not bare. The toe was much swollen. There was grating in the metatarso-phalangeal joint. The sore had existed for four years. Eighteen months after its first appearance it had healed under treatment. It soon, however, broke out again, and has existed as a deep discharging ulcer ever since. The patient suffers from lightning pains, and the patellar reflex is entirely absent on both sides. His gait is normal, but he is unable to maintain his equilibrium when his eyes are closed. He is troubled with some incontinence of urine. His pupils are much contracted. They respond to accommodation, but not to light The treatment was commenced on Aug. 12th. On the 19th the poultices were discontinued and the paste applied. The man was discharged on the 30th with the ulcer entirely healed.—Nov. 15th: The patient has followed an active employment as a gasfitter since his discharge. He has always worn a felt plaster over the site of the ulcer. The ulcer is entirely healed, and the foot has given him no trouble since he left the hospital. Previously to his admission the pain caused by the ulcer had often seriously interfered with his employment. In both this and the previous case there was apparently no loss of sensation in the integuments of the sole. In this instance a sore that had existed, with the exception of one short interval, for four years yielded to treatment at the end of eighteen days.

Gordon-square, W.C.

NOTE ON THE

OPERATION OF TRACHEOTOMY IN CASES OF DIPHTHERIA OR CROUP.

BY JOHN W. OGLE, M.D., F.R.C.P. LOND.,
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IN consequence of the recent and lamentable death of Dr. Rabbeth various contrivances have been recommended as substitutes for the oral suction, which is, at times, and at a moment's notice, necessitated when opening of the larynx or trachea has been resorted to, in diphtheria or croup. I would suggest that such suction would be rendered free from any risk provided that a piece of some very thin, soft, and pliable material, such as extremely delicate cambric or silk (or so-called "grenadine" or "gossamer"[1]), three or four inches square, were laid over the windpipe and so adapted as to form a small pouch or sac over the orifice made therein, which should be received into the mouth of the operator before the suction was practised. The character of the tissue or material would permit of the movements of the lips and tongue, appropriate to the act of sucking; and the diphtheritic stuff would be almost as easily drawn into the sac contained in the mouth as if nothing had been interposed between the windpipe-orifice and the cavity of the operator's mouth. It would doubtless be, also, advantageous if the substance forming the sac or pouch into which the diphtheritic material would be sucked were well moistened by some suitable antiseptic liquid, such as a solution of boracic or salicylic acid, or a spirituous solution of thymol or diluted oil of eucalyptus. By such a procedure as the above described the diphtheritic films and fluids aspired into the mouth would not, in any case, come into direct contact with its lining membrane; and in this way danger to the operator would be entirely obviated.

It has been thought that most likely the evil (and occasionally fatal) results which have occurred to operators after sucking deposits into the mouth have been consequent on some abrasion of the mucous surface. It is, indeed, generally conceded that diphtheria cannot be communicated to any part of the *skin* unless there be some lesion of continuity of the surface; but the details of such remarkable cases as Trousseau[2] and others relate, in which physicians have contracted diphtheria from patients and succumbed to the disease, seem to show, unequivocally, that the entirety of the surface of the mucous membranes does not by any means confer an immunity from contagion. The diphtheritic membrane in the mouth and throat has, from time to time, been dissolved by escharotics, astringents, &c.; and it has been suggested that possibly local agents might be of service in diphtheritic and other false membranes lining the windpipe, but of course the difficulty consists in applying them. If their application were practicable, and there were sufficient time for their action, most likely substances which possess a solvent power over albumen and fibrin, such as acidulated pepsine and lactic acid, would be those selected for the purpose alluded to.

Before closing this note I wish to mention that Dr. Ewart, of St. George's Hospital, has observed to me that probably in cases where diphtheritic and other morbid products have to be sucked into the mouth, the operator, by rinsing out the mouth previously to the process of sucking, would be able to shield the mucous surface from contagion.

Cavendish-square, W.

[1] Possibly some texture like goldbeater's skin.

A NEW NEEDLE-HOLDER.

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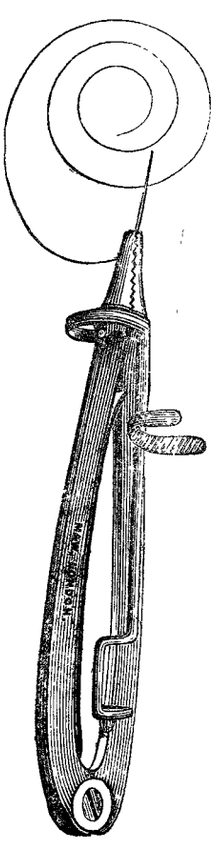
THE special feature of the instrument consists in the novel device by which the opening, shutting, and fixing movements are accomplished. The blades are surrounded by a triangular collar with rounded angles, fixed just below their points, and under the control of the thumb by means of a lever. When the holder is grasped by the hand, this collar can be easily rotated. In its long axis the blades are released by a recoil spring, but by a slight movement they are securely fixed, and the points are brought into close contact with each other. The holder is represented in the engraving carrying a surgical needle and thread. It is adapted for the introduction of every kind of needle, and it is not liable to get out of order. The pressure at the points can be accurately regulated by the hand of the surgeon, and thus the risk of breaking needles is greatly diminished. The long lever attached to the thumb-plate is intended to facilitate the insertion of deep stitches in plastic operations. The rotatory action of the instrument is the chief element of novelty, and this marks the difference between it and the holders now in general use. By slight movements of the thumb on the lever, complete control is obtained over the needle. Sir Spencer Wells' short scissor-shaped holder is suitable only for the introduction of large needles, and the ordinary spring instrument gives no variation of pressure at the points, except the slender accommodation obtained by covering them with soft metal.



[2] The reader may remember the three cases of malignant diphtheria quoted by Trousseau. First, that of a hospital colleague into whose mouth a small quantity of saliva was spurted by a patient when coughing, and who died in forty-eight hours: secondly, that of another physician, who died, also in forty-eight hours, after applying his mouth to the wound in the windpipe: and, lastly, that of a young medical man who died after an attack of diphtheria of seventy hours' duration, caught whilst sitting up for three nights with a patient.