AMBULATORY TREATMENT OF VARICOSE ULCER.*

BY

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VARICOSE veins are met with in men and women in all grades of society, but varicose ulcer is almost entirely confined to the wives of working-class men—women who, as a rule, have had large families, and who have to work all the waking hours all the days of their lives. So injured are some of these women to the pain that they hesitate to have the ulcer healed lest some other and greater misfortune should overtake them.

Our experience, gained during the past twelve months, shows that most ulcers of the leg can be healed, and over 80 per cent. can be cured; it favours a special clinic for ulcers of the leg, since it is difficult to give these patients the attention they require in the ordinary course of a mixed clinic.

In each case of chronic ulcer a complete history is taken and a description of the ulcer is recorded for future reference. The Wassermann reaction is always determined, and should this be positive appropriate treatment is given. Varicose veins are treated by injection, and their cure has rendered the prognosis for varicose ulcer much better than formerly.

INJECTION OF VARICOSE VEINS.

This operation is performed in the out-patient clinic, and the following solutions are used.

1. Quinine hydrochlor.	...	...	...	4 grams
Urethane	...	...	...	2 grams
Aqua dest.	...	...	...	30 c.cm.
2. Sodium salicylate	...	...	...	111 grains
Novocain	...	...	...	5 grains
Aqua dest.	...	...	...	444 minims

The initial dose of either of these is 1 c.cm., and if no idiosyncrasy is observed 2 or 3 c.cm. can be injected at future sittings; it is advisable that 1 c.cm. should be given at each puncture, and at intervals of about two inches on the vein. The injections are given weekly.

Technique.—The patient is seated at a convenient height with the foot of the leg to be treated on a rest. The site for the injection is painted with iodine, and a tourniquet is applied above the selected site. When the needle of the syringe has been introduced into the vein the tourniquet is released and the forefinger of the left hand is placed on the distal side of the needle to compress the vein, the middle finger being used to compress the vein above the needle. The middle finger is then firmly separated from the forefinger so that the underlying vein will be emptied. The injection is made and, before the needle is withdrawn, a pad is so placed that compression will prevent the solution from passing along the needle tract. The fingers and pad are kept in position for three to four minutes, after which they are released and collodion is applied to the puncture.

It is not advisable to inject veins very near the ulcer, lest infection of the thrombus supervenes. Hard edges of ulcers are freely scarified, and if, as frequently happens, there are aneurysmal dilatations on the veins immediately above the ulcer, they should be opened and allowed to bleed empty. Following scarification a dry gauze and wool dressing is applied for twenty-four hours.

The "ulcer and leg" is now dressed with Unna's zinc-gelatin, which dressing is kept on for one week; at the end of this period the dressing is removed, the leg is cleansed, and a new dressing is applied. The formula for the zinc-gelatin is:

Zinc oxide	...	...	...	...	10 parts
Gelatin	...	...	...	...	6 "
Glycerin	...	...	...	...	14 "
Aqua	...	...	...	...	24 "

This forms a stiffer dressing than the usual formula for this preparation and is strongly recommended.

Technique.—The patient is seated at a convenient height and the foot is placed on a rest. The zinc-gelatin, warmed to make

* Read before a meeting of the Lancashire and Cheshire Branch of the British Medical Association.

it liquid, is painted on the leg and ulcer with an ordinary paint-brush and a gauze bandage is applied—two or three layers of bandage are employed. It is important to note that the entire ulcer is covered with the dressing, no window being left.

Those who have not tried this dressing often object to a discharging ulcer being covered, but it can be done with confidence, and though the ulcer may, as frequently happens, be bathed with pus, when the dressing is removed the edges of the ulcer will show a tendency to heal, which will eventually go on to complete cure. Such a procedure will rapidly cure varicose ulcers.

A word of warning is necessary with regard to the injection of very small varices which are met with in many patients. If such cases are injected the patient should be put to bed for twenty-four hours following the injection, since swelling ensues, and gangrene with the formation of a slow-healing ulcer is liable to occur.

We have during the past twelve months treated nearly seventy ulcers, with marked success in every case. Ulcers of long standing—in one case of twenty-three years—have healed, and still remain so. Patients are asked to report at regular intervals after discharge, so that we may observe the result.

THE TREATMENT OF PROGRESSIVE MUSCULAR ATROPHY BY PARATHYROID, CALCIUM, AND VITAMIN D.

BY

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By the administration of parathyroid extract, calcium, and vitamin D recently in the Presidency-General Hospital, Calcutta, results have been obtained in two cases of non-luetic progressive muscular atrophy which, while they have not attained a degree exceeding mediocrity, perhaps, are nevertheless striking and gratifying.

The method of treatment employed at the outset was the hypodermic injection of parathyroid extract 1/10 grain daily, together with cod-liver oil 1 ounce twice daily by the mouth, and calcium chloride in solution 15 grains three times daily. Later this treatment was modified: ampoules were substituted for the tablet form of parathyroid extract, colloidal calcium took the place of calcium chloride, and ostelin, 4 minims twice daily, was given in addition to the cod-liver oil.

CASE I.

The first patient, admitted on November 26th, 1927, was an Anglo-Indian, aged 34, who gave a history of sixteen years' duration of gradually progressing muscular weakness and wasting. This case was clinically of the pure lower motor neuron type, weakness and wasting being especially marked in the ulnar muscles of both hands and forearms, the biceps and triceps of both sides, the muscles uniting the scapulae to the spinal column, the muscles of the back, and the anterior tibial muscles with marked foot-drop. Weakness without appreciable wasting was present in the hamstring muscles of both sides. A somewhat remarkable feature of the case was excessive wasting of the sterno-mastoid muscles, amounting to almost complete absence. With the exception of the sterno-mastoids all the muscles reacted to faradism. The gait consisted of a peculiar goose-step, owing to the weakness of the hamstrings and the foot-drop. There was considerable lordosis; the patient had to be assisted to his feet, and could not walk unaided.

The treatment above outlined was begun on December 12th, 1927. About three weeks later he surprised all concerned with the statement that he was improving. It was found, however, that he could dorsiflex both feet just a fraction of an inch. Further slow progress occurred, and at the present time he can approximate his scapulae in the mid-line posteriorly with the hitherto completely paralysed rhomboid muscles, exert quite an appreciable grip with both hands, and can flex and extend both arms at the elbow against some slight resistance, which he could not do previously. He sits more erect in a chair, and there is unquestionably great improvement in general health and muscular tone. There is but little change in his gait, though he walks with greater steadiness, and has somewhat greater facility in lifting his toes from the ground.

CASE II.

In the case of the second patient, a European aged 40, admitted on January 5th, 1928, the progress of the disease had been far more rapid, the first sign of weakness having occurred less than three years previously. This was a case of amyotrophic lateral sclerosis with profound wasting and *main-en-griffe* deformity of both hands, with ankylosis of the metacarpophalangeal joints. There was extreme general wasting and spastic paralysis of the

bulbar muscles; the palatal reflex was absent. Swallowing was very difficult, and the jaw hung pendent; liquid food had to be placed inside the mouth and was slowly gulped down. This was succeeded by fits of coughing when the food proceeded towards the air passages. The wasting of the intercostal muscles was extreme, and respiration was a painful process. To add to the patient's discomfort there was a troublesome laryngitis and bronchitis, giving rise to an incessant gurgling noise on respiration. The patient was entirely helpless, and beyond straightening out his legs when they were flexed he could scarcely perform any voluntary movement. He could shake his head for "no" and say "ah" for "yes," otherwise he was incapable of speech. He was naturally regarded as being very near his end.

Within ten days of his starting the treatment his wife stated that she noticed an indefinable improvement in his condition, and within a month definite changes for the better had appeared. The patient was with some difficulty able to approximate his lips and to raise his head from the pillow, and could swallow his food without inconvenience. A conversation could be carried on with him with a certain amount of difficulty. At the present time he cannot phonate well, but he can form even three-syllabled words with his mouth, and it is quite easy, if one has patience, to understand what he has to say. The most remarkable advance, however, has occurred in the use of his jaw muscles. He can now chew his food without any difficulty and swallow quite easily. Another unquestionable improvement is manifest in the use of the lower limbs, for he can now flex and extend both legs at the knee-joint, and can also dorsiflex both feet.

The general nutrition of this patient has improved remarkably. The weight has not been recorded owing to the discomfort weighing would have caused, but the improvement has been visible. On admission he gave the impression of being in imminent danger of death, and the change for the better is beyond all doubt.

These clinical observations appear to indicate that there is an element in the treatment which is concerned most closely with nerve-cell metabolism. It will be noted that in both the cases atrophy had proceeded to such an extent that complete recovery could not be expected, for in the first there was a sclerosis of neural tissue extending over a period of sixteen years, and in the second a progress to almost the terminal stages of the disease in a relatively short period. There is no doubt that in early cases in which wasting has only just commenced, and where fibrillation is still active in the weakened muscles, something approaching a complete cure might be expected. Even in severe cases it appears feasible to suppose that the onward progress of the disease may be arrested.

There is a group of cases of quite another nature in which a trial of this form of therapy would appear to be justified. I refer to the group of mental illnesses, and especially to dementia praecox, in which the whole symptomatology from the beginning to the most distressing end argues a cell atrophy which, invisible and molecular though it may be, is nevertheless sufficient to cause complete disintegration of the higher association tracts. Paranoia might almost be included in the same category.

I have to thank Major E. O'G. Kirwan, I.M.S., the surgeon-superintendent of the Presidency General Hospital, Calcutta, for permission to refer to the cases concerned.

Memoranda :

MEDICAL, SURGICAL, OBSTETRICAL.

LIGATURE OF THE INNOMINATE ARTERY FOR INNOMINATE ANEURYSM.

In the *British Journal of Surgery* (vol. ix, No. 35) Sir Charles Ballance collected the recorded cases of ligature of the innominate artery; he writes: "All the cases recorded in the following paper, except my own, are of ligature of the innominate for subclavian or carotid aneurysm." His own cases comprised four, of which two patients died shortly after operation, one died two and a half years later, and the remaining one could not be traced. Aneurysm of the innominate artery cured by proximal ligature of the artery is therefore sufficiently uncommon to make the publication of the present case of interest; it is, moreover, the first successful case to be reported from Leeds.

A man, aged 37, received in 1918 a bullet wound at the root of the neck on the right side immediately above the centre of the clavicle. The bullet was removed at a casualty clearing station from just above the inner end of the clavicle, and the wound rapidly healed; but a small hard swelling remained at the

site of entry, and another as large as a small egg in the notch above the manubrium sterni. Since being wounded he has had a husky voice and frequent attacks of pain in the neck, and headache without vomiting. In 1925 he suddenly lost the vision of the right eye, which partially returned later.

A week before Christmas, 1926, the central swelling began to enlarge rapidly, and this was accompanied by much pain both at this place and in the back of the neck. He was admitted to the Ministry of Pensions Hospital in Leeds in January, 1927. There was a tender pulsating swelling as large as a big pear filling the notch above the sternum and extending in an ill-defined manner to both sides of the neck; the central part of this swelling was purple in colour and almost as thin as tissue paper. He complained of pain in the root of the neck, in the occipital region, and behind both ears. There was difficulty in swallowing, especially fluids. The right pupil was contracted, and the right radial and carotid arteries could only be felt pulsating feebly; the huskiness of the voice was found to be due to right recurrent laryngeal paralysis. There were no sensory changes in the hand or arm. He was short of breath, had a pulse of 92, and a temperature of 99.4° F. As the swelling was rapidly increasing in size I decided to operate without delay, and performed the following operation on January 24th, 1927.

The manubrium sterni was removed after carefully separating the thin aneurysmal sac, which was closely adhering to the upper border. The aneurysm was found to spring from the innominate at its bifurcation, leaving rather less than half an inch of the main trunk intact at its origin from the aorta. A ligature of No. 2 chromic catgut was passed round this part of the innominate and tied with sufficient tension to approximate the walls closely. The recent acute symptoms were obviously due to a leak in the upper and right side of the sac. The clot was turned out, when vigorous bleeding occurred from the distal end of the subclavian. A finger was applied to the open mouth while sutures were being inserted on the inner side of the sac; after tying these all haemorrhage stopped. It was impossible to obliterate the greater part of the sac, and inadvisable to attempt removal, as it was firmly adherent; it was therefore packed.

The patient stood the operation remarkably well, but the wound took some weeks to heal completely, owing to the packing. The right arm was useless at first, but has since fully recovered, though there is, of course, no radial pulsation. When last seen, in June, 1927, he was very well, with no sign of recurrence. All that remained was a small hard mass where the aneurysm had been, and a depressed scar at the place from which the manubrium sterni was removed. He has, of course, still the huskiness of his voice, and vision is limited to the central part of the field, in which he can only distinguish objects rather mistily. He is quite free from pain.

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ACUTE APPENDICITIS FOLLOWING TYPHOID FEVER.

THE relation between acute appendicitis and typhoid fever has always been an interesting point and the cause of some confusion in diagnosis. Acute appendicitis following typhoid fever must be a rare condition—I have no means here of verifying this—and the following case may prove of more than ordinary interest.

A young man was admitted to the Colony Hospital, Grenada, on April 21st, 1927, with a history of four days' continued fever. His doctor regarded him as a case of suspected typhoid fever, but was doubtful of the diagnosis, as there was an old history of (?) malignant malaria in Demerara several months previously. He was isolated and kept under observation, and eventually was notified as a positive typhoid case five days later. His illness ran a typical course up to the twenty-fourth day, a defervescence by lysis having occurred. On the evening of this day (May 10th) his temperature suddenly rose to 100.6° F., with pulse rate quickened to 114, and he began to complain of acute abdominal pain. It is noteworthy that his pulse rate ranged from only 76 to 100 during the height of the typhoid fever.

I ordered a soap enema and the result was copious, but there was no relief from the pain; he was slightly distended. Palpation of the appendix region revealed a well-defined enlarged appendix with bulbous extremity, which was tender. The matron of the hospital palpated the appendix and could make out its outline distinctly. On the morning of May 11th I operated, and removed an acutely inflamed appendix with, as we had expected, an enlarged tip; it was adherent in its whole length to the caecum. The wound healed by first intention, and though the patient ran a temperature for some eight days afterwards his recovery was uneventful and he had no more pain.

The patient's prolonged convalescence was entirely due to his enteric condition. No blood counts were performed during his typhoid phase nor at the occurrence of the appendicitis; they might have been of interest, but the abrupt acceleration of the pulse rate was significant. I regard this as a genuine case of appendicitis occurring at the end of the third week of typhoid fever, and the wonder is that there are not more instances of the same condition to record.

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