skin covering it was thin and atrophic and showed the vertical scar of the previous operations. Partial reduction of the hernia was possible, and the opening in the aponeurosis could then be felt; it admitted three fingers, the lower margin of the opening being formed by the symphysis pubis.

Operation.

On April 11th, 1925, I operated, making transverse elliptical incisions round the hernia, the convexity of the lower incision being just above the pubis. The neck of the sac having been opened, the contents, consisting of omentum and transverse colon, were freed and returned to the abdomen. The superfluous sac was cut away and the peritoneum sutured. The edges of the recti were now exposed and the anterior layer of the sheath dissected up on either side. The dissection was carried downwards so as to expose the symphysis and the pubic bones. The recti were shortened by making a 1½-inch tuck in each, and they were then separately sutured to the pubis with kangaroo tendon so that they overlapped each other; the overlapping of the sheath was carried to the upper limits of the wound when retracted; for this seven or eight interrupted mattress sutures of catgut were used. A small drainage tube was left in the superficial tissues for twenty-four hours. The wound healed by primary union. On April 23rd she commenced abdominal exercises in bed. These consisted in lying on the back and raising the extended lower limbs on the trunk and then raising the trunk without using the hands. These exercises were carried out several times a day until tired. The patient began to get up on April 30th, and was discharged on May 8th.

I saw her on November 25th, and found no signs of recurrence. The abdominal wall was strong and there was no bulge when she raised the extended legs on the trunk.

The interesting feature in this case was the proximity of the neck of the sac to the symphysis, which actually formed one of its boundaries.

Seven months is too short a time to decide the value of the operation from the point of view of recurrence, but on general grounds it is certainly encouraging and appears worthy of trial in suitable cases.

TREATMENT OF CHRONIC VARICOSE ULCER.*

BY

A. P. BERTWISTLE, M.B., CH.B., F.R.C.S.ED.,
LATE RESIDENT SURGICAL OFFICER, GENERAL INFIRMARY, LEEDS.

REMEDIES for chronic varicose ulcer are many and various. For some of these specific virtues have been claimed, but their indiscriminate employment soon leads to disappointment. Full consideration should be given to conditions in each case, and the treatment modified as circumstances vary.

The following cases, which recently came under my care, illustrate this; in two the results were especially satisfactory. The point to be emphasized is the rapid relief of pain which occurred in all.

CASE I.

A spare woman, aged 82, had an ulcer on the lower third of the leg, which had been present for two years. There were varicose veins in both legs. She had been in a large hospital in London for eleven weeks, during which time the ulcer had been fomented continuously. She left hospital on being told amputation was the only treatment possible. She had become very weak as the result of intense pain, especially at night. The ulcerated area measured 12 square inches, and consisted of a main and two outlying portions; it was raised at least half an inch above the surroundings, and was adherent to the bone. For its description Erichsen's definition of a "weak" ulcer cannot be bettered: "The granulations are high and flabby, with a semi-transparent appearance about them, and rising in large exuberant, gelatinous, reddish-looking masses above the surface of the sore. The granulations have a feeble vitality, and readily slough. Such not uncommonly occur from emollient applications having been continued too long." A silver nitrate stick was applied to the edge of the ulcer to destroy these granulations, and gauze, soaked in a saturated solution of picric acid, was placed on the surface. The whole was carefully strapped to prevent drying, as far as possible.

After the first few hours she had no pain, and slept well that night for the first time for months. The ulcer was dressed twice similarly on alternate days, after which the picric acid was replaced by iodoform powder, the silver nitrate being continued. In ten days the surface of the ulcer was level with that of the surrounding parts, and was covered with thin skin. This skin broke down, exposing granulations, which, however, were now not heaped up. Iodoform was discontinued, and boric ointment, spread on lint, applied. In four days the whole was covered with thin skin, which steadily increased in thickness. At one time some eczema appeared, but it soon responded to bismuth

powder. She now wears a crêpe bandage. Medical treatment consisted in the exhibition three times a day of a mixture containing 10 grains each of sodium bicarbonate and potassium iodide, with infusion of gentian. Her general condition began to improve immediately with the relief of pain. The cure was all the more remarkable as, although she spent most of her time on a couch, she persisted, when so disposed, in walking about, whereas in hospital she had been confined to bed.

CASE II.

A hard-working woman, aged 49, treated as an out-patient of the London Dispensary, Fournier Street, E., had an ulcer over the tibia two inches from the malleolus, two inches in diameter, which had been treated for many years. The ulcer was depressed, its edges hard and punched out, and its surface glazed and exuding watery fluid. It was fixed to the deep structures. The edge of the skin margin was touched with silver nitrate stick and the surface of the ulcer dusted with iodoform. Gauze and wool were applied and the whole carefully strapped; in a week the edge of the ulcer had become shelving, had lost its induration, and was no longer fixed to the bone. After some three hours' smarting after the dressing, pain had almost entirely disappeared. Her health steadily improved with the alleviation of pain, the same treatment being continued for six weeks. She had the same mixture as Case I. Recently she was able to spend ten days in bed, which completed her cure. She now wears a crêpe bandage.

CASE III.

A business man, aged 65, had had extensive phlebitis in both legs many years ago, and ulcers for about ten years. On the left side were three—two inches, three-quarters of an inch, and half an inch in diameter—on the outer side of the lower third of the leg, resembling that of Case II. On the right internal malleolus was a painful ulcer, neither raised nor depressed. Both legs were greatly swollen, hard, and somewhat oedematous. The same treatment was instituted as for Case II, but unfortunately bismuth had to be substituted for iodoform, as the latter nauseated his wife. Pain was relieved to a large extent, and the patient's legs became more supple. It was aggravated by long standing or cold weather. He is unable to "lie up," but the ulcers have become steadily smaller.

CASE IV.

A Russian Jewess, aged about 60, had an ulcer six inches in diameter over the lower part of the tibia. It was difficult to ascertain how long it had been there—many years, however. The whole leg was enormously thickened. The treatment as for Case II was carried out for six weeks, when she died of cerebral haemorrhage. The ulcer was then only one and a half inches in diameter.

Treatment in these cases resolved itself into that of:
(a) the veins, (b) the ulcer.

The Veins.—The patient should stay in bed, or, if this is impracticable, the leg should be kept up as much as possible and a crêpe bandage worn. The latter is preferable to an elastic stocking, which is expensive and difficult to put on over a dressing; moreover, it must interfere with the blood circulation on the surface of the ulcer.

The Ulcer.—Applications were chosen for the following reasons: (1) Reduction of sepsis is the main objective of all. For proliferating types picric acid has been found to be of the greatest service on several occasions. It possesses considerable powers of penetration, is not irritating, and does not cause much exudation. Iodoform is invaluable in depressed ulcers, having great penetrating powers and being a deodorant, though, as in Case III, it may nauseate certain individuals; peroxide fomentations may be employed if sloughs are present. (2) Stimulation of the skin edge may be done with silver nitrate; when the sepsis is reduced emollient preparations, such as ung. ac. borici, are indispensable. It is astonishing to observe how rapidly an area becomes covered with skin when all papillae must have disappeared years ago (see Case I); such a dressing gives admirable protection against damage to this thin skin. (3) Destruction of granulations goes hand in hand with elimination of sepsis; it is assisted by silver nitrate cauterization. (4) If a cure is to be effected the thin skin must be kept moist and supple; evaporation is best prevented by careful strapping. (5) In protection from trauma strapping forms the best preventive. (6) Of drugs given for alleviation of pain, iodides internally and the iodoform externally may have some action on the bone. Whether this is so or not, the most striking feature of all the cases was the relief of pain.

REFERENCE.

* Delivered at a clinical meeting of the City Division of the British Medical Association, January 8th, 1926.

† J. E. Erichsen: *Science and Art of Surgery*, vol. i, p. 168 (1897).