ULCERATED LEGS SEEN IN GENERAL PRACTICE

P. M. FLEURY, M.B., B.S., M.R.C.S., L.R.C.P., D.R.C.O.G.
Medical Superintendant, St. Lucy's Hospital, Tsolo, Transkei, S. Africa

There has recently been much discussion, and many articles and letters have lately appeared in the medical papers on the subject of ulcerated legs. (Bull and Phear, 1957, 1958; Harvey, 1957; Buchan and Falconer, 1957; Foley, 1957; Foote, 1957; Moriarty, 1957; Slandeven, 1958; Dickson Wright, 1957, 1958).

By far the commonest cause of ulcerated legs is ischaemia, which may be produced by varicose veins, gravitational effects, stasis, pressure, and general disease, and the term " chronic ulceration " describes all these types, and is a better term than gravitation ulcer, static ulcer and thrombotic ulcer. Varicose ulcer can be present in the absence of varicose veins. (Anning, 1954; Boyd *et al.*, 1952).

Although this type of ulcer is frequently described with well tabulated lists of causes, symptoms and complications; and treatments are recommended with much promise and assurance of success (Barrow, 1957; Anning, 1954; Dickson Wright, 1931, 1940, 1958; Bull and Phear, 1958; Foote, 1957), it is my experience, both as a general practitioner and as a hospital doctor, that although ulcerated legs (which often behave a little unorthodoxly, and do not quite fit into any of the categories described in standard text-books) can nearly always be improved, and complete healing for a temporary period results more often than not, permanent cure is rare: as Mahorner (1949) says, " Even though the ulcer heals promptly, the patient will have to fight recurrences for the rest of his life ", and on many occasions the ulcers are resistant to all the common and well tried methods of treatment. A chronic leg ulcer is no minor ailment, and Mahorner recommends amputation if the patient is incapacitated by the complaint, and the prospect of cure is poor, for he says, " It is better to live without a leg, than to live for a leg ".

There is little glamour in the subject of ulcerated legs, but as a general practitioner it interested me greatly, for it is largely of such common stuff that our daily round is made up. (Foote, 1957). Medicine in general practice may lack somewhat in technical interest, and an ulcerated leg is admittedly an unattractive disease, but the care of the patient with this chronic complaint need not be uninteresting (Fleury, 1957) and I think the following two cases illustrate this. In both the ulcers were produced by rather unusual circumstances,

and have proved unsatisfactory in their response to the treatment I have been able to give them.

Case 1. A woman aged 84 sent for the doctor complaining of 'flu. She could not remember ever having had a doctor before, and but for her unmarried daughter who had come home on holiday and found her mother in bed she would not have troubled the doctor on this occasion.

She was an overweight, tired old woman, with a sallow complexion, and marked pallor of the mucus membranes.

There was an ugly pigmented patch below the right eye. She was obviously suffering from chronic sepsis, and general ill-health. She was afebrile, and incontinent of urine. There was slight anaemia and in the chest rhonchi and rhales in all areas. No other abnormal physical signs were present in the systemic system.

Legs. (Figure 1). The photographs were taken about six days after she was first seen and some healing, and certainly some cleaning had taken place. The right leg appeared rather withered, and there was a large area of black, scaly, varicose dermatitis covering the whole of the anterior aspect. The left leg appeared to be completely deformed. In the upper part of the calf was an enormous brawny swelling. The overlying skin was black and scaly, and the tumour was firm on palpation. On the lower part of the leg and foot were several large ulcers of irregular shape and size, exuding a profuse, and most sickeningly foul-smelling, thick greenish-yellow pus. The dorsum of the foot was oedematous, and the dorsalis pedis artery was not palpable.

The urine contained a slight trace of albumen.

Haemoglobin 45 per cent. P.C.V. 23 per cent, W.B.C. 6,900, Reticulocytes 6 per cent. Films confirmed an iron deficiency type of anaemia. Blood group B.Rh.Neg.

In this case the primary complaint of 'flu was of very secondary importance; the problem was to discover the cause for the appalling condition of the left leg, and to treat the patient. I wondered whether the pigmented mole under the right eye had become malignant, and the swelling in the calf was a metastatic melanoma which was interfering with the circulation and nerve supply to the lower part of the leg.

Treatment. The leg was treated in the first instance by four hourly normal saline bathings and glycerine and icthyol compresses. Two days later I noticed what appeared to be at first sight a piece of fibrous tissue, but on closer inspection this was seen to be a piece of elastic which was mostly buried in the surrounding tissues, but about an inch of this band was just visible across the front of the shin. I cut this strip and pulled one end, and to my delight and astonishment out came a knotted piece of elastic which had encircled the leg! I had discovered the cause of her trouble. The tight garter had obstructed the circulation distal to it, and the ulcers were ischaemic in origin, and a trophic factor may well have contributed. The brawny swelling proximal to the garter was due to damming back of the blood supply and resultant oedema. On questioning the relatives, they admitted that the ulcers and most awful smelling discharge had been present for about two years. They had come on gradually before that, and were accepted as an accompaniment of old age, and unworthy of the doctor's attention. The aetiology having been ascertained, and a correct diagnosis made possible, the prognosis was now indeed much more favourable. The patient was given a course of Mist. Tussis. Nig. ½-oz. t.d.s., Vitamin C 50 mg., daily, a course of 15 injections of Imferon 5 c.c. bi-weekly, and subsequently ferrous sulphate gr. vi t.d.s. At the commencement of treatment she was given a very slow transfusion of two pints of packed cells. (As the patient was unwilling to go to hospital this had to be undertaken in the patient's

home.) Immediately following the removal of the constricting garter, the ulcers were treated with four hourly eusol compresses, and the rest of the leg was inuncted with zinc and castor oil cream. Within a week of this treatment the discharge from the ulcers had practically cleared up, and they were then treated with four hourly inunctions of ung. morrhuate. The general condition of the patient also improved tremendously, and she became brighter, continent of urine and began to enjoy her food. Her haemoglobin was raised to about 77 per cent over a period of about ten weeks.

After about two weeks of bed treatment, the patient was encouraged to get up, but she was extremely reluctant to walk. The condition of the leg improved beyond all recognition. The shape became almost normal and the ulcers healed almost entirely, leaving only shallow depressions, and except from one point, no discharge.

The cause of the ulcers being so radically removed, a complete restoration to full health was confidently anticipated. There remained however, the discharging sinus, and the question of chronic secondary osteomyelitis suggested itself. X-rays were taken which to our amazement revealed an old ununited transverse fracture of the tibia, and changes that could account for more than the discharging sinus.

A picture of severe, chronic and untreated ulcerated legs is given by Anning in his book *Leg Ulcers—Their Causes and Treatment*, and it makes a fitting description to the photographs and x-rays of this case.

Sclerosis of tissue of the lower third of the leg together with fibrosis, scarring and contraction may occur. The upper part of the leg may remain oedematous and an "inverted champagne bottle", or "piano leg" deformity results. Periostitis and osteitis of the underlying tibia and fibula may result from long continued ulceration. Occasionally calcification of the soft tissues of the leg occurs but only after many years of uncontrolled oedema. . . . Pigmentation with melanin also occurs, specially when the area has been eczematous. Eczema may appear as a reaction of the unhealthy, oedematous skin in an individual prone to this condition, or it may result from the irritation to the skin by the discharge from the ulcer. . . . Occasionally there is great thickening of the horny layer with the production of the "rhinocerous skin", or pachyderma.

The patient was persuaded to go into hospital where she died three days later.

Case 2. This patient is a man of about 70 years of age, in fairly good general health, but even with the help of two sticks is unable to get about much and moves very slowly. He has been having treatment for chronic ulcers of the leg for more than a year. The right leg is swollen and oedematous and the dorsalis pedis artery is not palpable, and there are irregular, shallow, discharging ulcers on the inner aspect of the leg, which cover a total area of about four square inches.

The photograph was taken about five months after treatment was commenced, and some slight improvement in the original condition had taken place, and it looks as though complete cure will never be achieved.

The ulcers in this case are undoubtedly due to ischaemic changes, and caused by the pressure of the scrotal swelling on the vessals and nerves in the upper part of the thigh. The hernia is not reducible, is not controlled by a truss or support, and, quite apart from the indications for operation in the hernia itself, the only radical form of treatment for the ulcers is to remove the cause by repairing the rupture. This the patient refuses.

Treatment. Initially, the ulcers were treated with penicillin tulle gras and saline compresses, and, when they became cleaner, with icthopaste bandages

covered by a firm elastoplast bandage, applied fortnightly by the doctor from the toes to the heels in the method advocated by Dickson Wright. This supports the leg, limits the oedema, aids venous return, and affords some protection to the part. Compression or pressure is recommended as the sheet anchor of treatment by many authorities (Barrow, 1957; Foote, 1957; Laufman, 1956; Wright 1931, 1957; and others).

The photograph also shows how the swelling has obscured the penis which appears to be enveloped in the hernia. This probably interferes with normal micturition, for the patient is continually wet. I have had to treat him for pediculosis pubis with D.D.T. powder, but I expect this condition will recur.

The treatment of this case may seem to be unsatisfactory, but as we are concerned with the management of the *patient* we sometimes have to give way to his wishes, and be content with second best treatment for the disease. When this is done for the sake of the patient as a whole it is always good clinical practice, and the standard of medicine is not lowered.

From a purely medical point of view there is no very great interest in this case. An ulcerated leg is no rare disease; incontinence of urine is frequently met with in old and feeble folk; and lice are fairly common amongst the poor and dirty and neglected. Inguinal herniae are found in a large proportion of males, but this one is of interest on account of its size, for it is rare to see such an enormous hernia nowadays, and also it illustrates some unusual effects of a large, inguinal hernia. I believe that the enormous swelling is mainly responsible for the fact that the patient can only hobble about with great difficulty and with the aid of two sticks; that he is constantly wet and smelling of urine, and that he suffers from chronic ulcers on his leg. If the hernia were repaired the leg would probably heal, the patient become more nimble on his feet, possibly the incontinence of urine would clear up, and the pediculosis pubis find their surroundings less congenial.

The treatment of these two cases has been quite different. As mentioned before some authorities advocate firm pressure as the mainstay of treatment for *all* cases. Boyde, Jepson, *et al.* state that most chronic ulcers can be healed with bed rest and antiseptic dressings, and condemn the use of a universal treatment for all ulcers, irrespective of their cause. Anning suggests a regime of bed rest for the first week or so of treatment, specially in large ulcers, and then firm pressure bandages and ambulation. Laufman uses a similar regime, the outline being, elevation, cleansing, and later compression and ambulation.

If the patient has suffered for many months with his ulcer, and there is much discharge, it seems reasonable to commence treatment with a week in bed and an endeavour to lessen the discharge by bathings and lotions.

Summary

Two cases of ulcerated leg have been described. The special

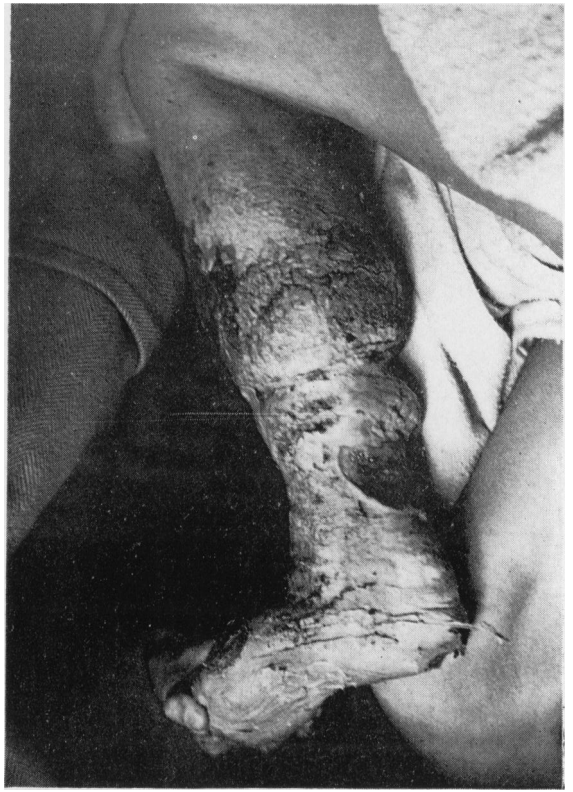

FIGURE 1

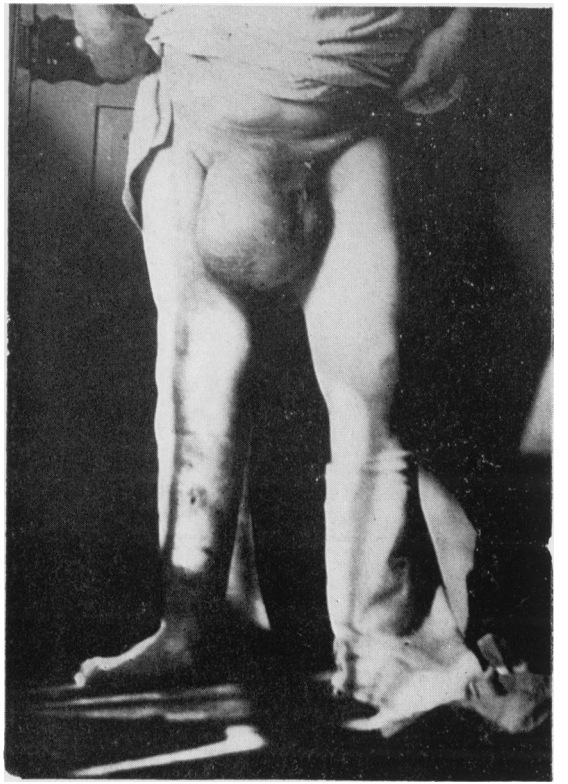

FIGURE 2

interest of these cases lies in the underlying causative factor of the lesions, and a certain human interest, interwoven as they are with the common things of life.

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The Stress and Strain of Present-day Life. A. U. MACKINNON (1957), *Univ. Leeds med. J.*, **6**, 102.

Dr MacKinnon has surveyed 79 general-practice patients with coronary disease, and classified them by grades of stress sustained. He concludes that " . . . . it doesn't matter so much what happens to you; what matters is how you take it." In two thirds of his cases he found a very stressful life associated with a bad adjustment to it.

He then points out that loneliness and social isolation often are caused by the nomadic habits of business executives who move from post to post to further their careers. They never reside in an area long enough to be absorbed into the local social life. Such loneliness may be a potent factor in causing suicide rates to be high in these occupations.

Dr MacKinnon goes on to discuss the maladjustments of neurotics, hypertensives, peptic ulcer subjects, and asthmatics; and finally suggests that the problem is basically a spiritual one, with the inborn constitution of the individual the dominant factor.