THE TREATMENT OF TRENCH FEET.

BY

A. SCOTT GILLET, M.R.C.S., L.R.C.P.,
TEMPORARY CAPTAIN, R.A.M.C.

AMONGST the mass of literature upon the subject of trench feet that has appeared within the last eighteen months I can find little, if any, stress laid upon two points which, in the experience gained by treating 1,018 cases, appear to be of vital importance to successful treatment.

I. THE VALUE OF COUNTERACTING HYPERIDROSIS.

For the sake of clearness the cases were divided, as far as was clinically possible, into two main classes:

- (a) Those of mild and medium degree, characterized to a greater or lesser extent by anaesthesia, oedema, and blistering.
- (b) Those of a severe type, with actual destruction of tissue, and perhaps gangrene, generally of the dry, but sometimes of the moist variety.

Taking into consideration the unavoidable overlapping of the two classes, the number of the first class was, roughly, 850 cases.

In over 800 of these hyperidrosis was most marked, very distressing to the patient, and interfered considerably with success unless great attention was paid to it. The majority of these cases were first seen at dates varying from two to fourteen days after the attack.

In nearly every case the limbs were wrapped in a thick layer of cotton-wool, with a fairly tight bandage over it, the bandage, of course, being started and finally fixed round the ankle. Upon removal, the part was invariably sweating and often odoriferous. It was noted that in a few cases where there was no wool used, the course of the case was undoubtedly better and recovery was much more rapid. As a result, most of the cases were treated upon the lines of the following routine, individual exceptions being treated as circumstances allowed and common sense demanded.

Local Treatment.

1. The part is covered with one thin layer of gauze, arranged, if possible, so that it is in the form of a tent over the part, rather than resting upon it. No wool whatever is applied. Dr. Ramsay Hunt,¹ in this connexion, says, "they are then loosely covered with wool or left exposed"; and certainly upon the experience gained in treating this series of cases, there seems no doubt that the latter alternative is infinitely preferable, and yields better results. The absence of a bandage fixed round the ankle tends also to reduce congestion.

2. The part is left exposed to the air, night and day, every opportunity being given for what sun there is to have free access to the part during the day. The use and value of a sun bath cannot, I think, be overestimated.

3. The foot is powdered three times a day with some antiseptic powder, such as boric acid, iodoform, a combination of the two, or borsal (equal parts of boric and salicylic acid). The cases seemed to do best with the borsal, as this counteracted the hyperidrosis most effectively.

4. If these measures failed after six or seven days' trial, the feet were, in addition, sponged with a weak formalin solution (1 in 1,000) once a day, and this was usually effective.

5. The foot was elevated, all pressure of bedclothes upon the leg below the knee being guarded against by the use of a cradle.

Medicinal Treatment.

White² has pointed out the value of calcium lactate in hyperidrosis and other skin diseases, and it seems to be a very useful adjunct in the treatment of the sweating in cases of this kind. I am inclined to think that the best results are obtained by using fairly large doses (3ss to 3j) at intervals of four or five days, rather than smaller doses more frequently.

Thus it was found that, if great attention was paid to keeping the feet dry, results were excellent and fairly quick. It seemed also to minimize the pain, which is so distressing a symptom, and upon these lines the use of any form of fluid for the relief of pain, or any other object, seems to be contraindicated. It was found that if cocaine,

menthol, or anaesthesin were added to the dusting powder, a considerable improvement in this direction was obtained.

II. THE QUESTION OF AMPUTATION.

In dealing with the severe type, the same routine was performed in every particular, with good results. The whole secret of success being, apparently, to combat the sweating and keep the foot dry and warm.

The consideration of the worst cases at once brings us face to face with the question of amputation. Nearly every one who has had experience of these cases will admit that in those in which gangrene of the dry variety supervenes there is absolutely no justification for anything approaching an early operation. All that need be done is the trimming of stumps after the line of demarcation has formed and sloughs separated.

If more stress were laid on this there would not be half the number of men left with amputated limbs and toes. The only cases in this series which needed immediate amputation were those in which moist gangrene was present (these numbered thirty-three), and only then should it be performed if delay should imperil the life of the patient on account of the concurrent toxæmia.

Many, with patience and continued efforts to keep dry, will be saved from amputation, and a final trimming only be necessary.

REFERENCES.

¹ *Medical Annual*, 1916, p. 262. ² *Journal of Cutaneous Diseases*, 1914, p. 691.

HOME-MADE BREAD SUBSTITUTES FOR
DIABETIC PATIENTS.

By R. T. WILLIAMSON, M.D.LOND., F.R.C.P.,
CONSULTING PHYSICIAN, MANCHESTER ROYAL INFIRMARY.

MANY diabetic patients are now finding considerable difficulty with respect to diabetic bread and foods. Owing to the war the cost of diabetic breads has increased, and their postage is slower and less regular.

In England we have a number of diabetic breads which, chemically, are quite satisfactory, and to many patients palatable. But other patients find that many of them are unpalatable, and the cost has always been an objection with poor patients; this objection is greater now as the war has increased the cost of most diabetic breads very considerably. The following directions for home-made bread substitutes may therefore be of some service.

I have used the first two bread substitutes for three years in the treatment of my patients at the Manchester Royal Infirmary and have found them very satisfactory and cheaper than diabetic breads. Before the war the cost of these bread substitutes was only about half the cost of the best diabetic breads, but, owing to the great increase in the price of food, it is now difficult to make a satisfactory comparison of the exact cost.

In my own house we had no difficulty in preparing these cakes. In the kitchen at the Manchester Royal Infirmary difficulties were reported, but these were finally overcome and for three years satisfactory cakes (1 and 2) were prepared for my patients at that hospital.

Many patients find these cakes more palatable than diabetic bread; some find them quite as palatable; whilst others find them less palatable than many pure diabetic breads.

1. *Biogene and Gluten Cakes.*

Biogene * three tablespoonfuls.
Satisfactory gluten † two tablespoonfuls.
Baking powder half a teaspoonful.
One egg well beaten up.
A small pinch of salt.

Mix well together, adding the baking powder last (just before baking). A little water may be added, if necessary. Drop into six tins, and bake for twenty minutes.

The cakes may be cut in two and a layer of cream spread between the two slices, if the patient prefers this addition.

* Biogene can be obtained from Messrs. Callard and Co., 74, Regent Street, London, W. It is a soluble casein containing a small percentage of phosphates.

† Satisfactory gluten flour may be obtained from Messrs. Callard and Co., 74, Regent Street, London, W. It should only contain 5 or 6 per cent. of starch. Only such preparations should be used; the cheap preparations of gluten contain a much greater percentage of starch and are unsatisfactory.

2. Biogene and Cocoa-nut Cakes.

Mix a quarter of an ounce of yeast with four tablespoonfuls of lukewarm water. Add one and a half tablespoonfuls of desiccated cocoa-nut powder.* Mix well. Cover and leave to ferment in a warm place (not hot) for one hour. Then beat up one egg with a little warm water; add this and six tablespoonfuls of biogene to the above. All should be well mixed into a stiff paste. Place in six small pattie tins. Bake in a moderate oven twenty or twenty-five minutes. When taken out of the oven allow the cakes to stand for ten minutes, and then slip them out of the tins with a knife, and allow them to dry. The tins should not be greased.

3. Gluten and Cocoa-nut Cakes.

Mix a quarter of an ounce of yeast with four tablespoonfuls of lukewarm water. Add one and a half tablespoonfuls of desiccated cocoa-nut powder. Mix well. Cover and leave to ferment in a warm place (not hot) for one hour. Then beat up one egg with a little warm water; add this and three tablespoonfuls of gluten to the above. All should be well mixed into a stiff paste. Place in six small pattie tins. Bake in a moderate oven twenty or twenty-five minutes. When taken out of the oven, allow the cakes to stand for ten minutes, and then slip them out of the tins with a knife, and allow them to dry. The tins should not be greased. These cakes should be toasted and buttered and not eaten cold.

4. Cocoa-nut, Casein, and Gluten Cakes.

Desiccated cocoa-nut powder two and a half ounces.
Casein two ounces.
Biogene half an ounce.
Gluten flour one ounce.
Two eggs.

Place the cocoa-nut powder in a dish; mix it with a quarter of an ounce of German yeast; cover it with water and mix well. Leave the mixture in a warm place (not hot) for one hour. Then add the casein, biogene and gluten flour, two eggs (beaten up), and a small pinch of salt; mix well and drop into six small tins. Bake for twenty-five minutes. These cakes only contain a very small amount of starch; to many patients they are quite palatable, and before the war the cost was small.

5. Cocoa-nut Cakes.

Half an ounce of German yeast.
Two tablespoonfuls of lukewarm water.
Eight ounces of desiccated cocoa-nut powder.

Mix into a paste, adding a little more lukewarm water if necessary. Leave in warm place for one hour. Then add one egg (beaten up in two tablespoonfuls of milk) and a little salt. Mix well. Place in eight small dishes or tins (well greased). Bake in a moderate oven twenty or thirty minutes. These are the cheapest diabetic cakes.

6. Almond Cakes.

These can be made in a similar manner; almond flour being used in place of cocoa-nut powder.

Cakes 2, 5, and 6 are free from starch, and should be practically free from sugar if prepared satisfactorily. Cakes 1, 3, and 4 contain a very small percentage of starch, as the gluten flour used contains 5 or 6 per cent. of starch.

If the patient is unable to eat these cakes, or unable to have them prepared satisfactorily, or if they are too expensive and the pure diabetic bread also too expensive, then it is better that he should take a small amount of ordinary white bread, three ounces daily, rather than take cheap impure diabetic bread in indefinite quantities. It is always desirable that all diabetic breads should be tested roughly by the medical man before they are advised to patients. This may be done by dropping a little of the following solution on to the cut surface of the diabetic bread:

Iodine	...	...	...	1 grain
Potassium iodide	...	...	...	1 "
Water	...	...	...	½ oz.

A deep blue-black coloration is produced if the bread contains much starch.

This simple test is sufficient to show that a large number of the very palatable cheap diabetic breads are loaded with starch, and therefore unreliable, unless they be regarded as practically the same as white bread and taken in the same limited quantities.

Diabetic patients should not try one bread substitute only. They should not cease to use all diabetic breads, should the first one tried be unpalatable. A number of the reliable bread substitutes should be tried, and the patient should continue to take the most palatable of these reliable preparations. But the patient should be allowed

* Desiccated cocoa-nut powder can be obtained from Messrs. Burgen and Co., 403, Oxford Road, Manchester, and from Messrs. Callard and Co., 74, Regent Street, London, W., and from many other firms.

to try only reliable diabetic breads—that is, those which the medical man has found from his own testing to be satisfactory.

I think that most patients will find one or more palatable cakes amongst the six for which directions for preparation have been given in this note, and the cost will be considerably less than that of diabetic breads. The cheapest are the cocoa-nut cakes and the combined cocoa-nut, casein, and gluten cakes. All are satisfactory chemically, if carefully prepared. Probably most patients will find the biogene and gluten cakes or the combined cocoa-nut, casein, and gluten cakes the most palatable.

Memoranda:**MEDICAL, SURGICAL, OBSTETRICAL.****TETANY AFTER THYROIDECTOMY;
RECOVERY.**

A GIRL, aged 20, was admitted to the Church Missionary Society's Hospital, Old Cairo, Egypt, for the removal of the left lobe of an enlarged thyroid. The gland had been very large, and the right lobe had been removed by another surgeon in the hospital some months previously, so at this operation I was careful to leave a considerable portion of the gland, which I considered should be sufficient to avoid complications, and also to disturb the parathyroids as little as possible. She stood the operation quite well, but exhibited slight signs of tetany after thirty-six hours, and on the third day had regular spasms. The extremities were chiefly affected, and the "accoucheur hand" was well marked. Feeding with thyroid gland was at once commenced; at first five grains three times a day, increased after a few days to ten grains. Enemata of calcium lactate in solution were also given. The spasms continued at intervals, some which included the muscles of respiration and produced dyspnoea and marked cyanosis being very alarming. Thinking she was going to die, her relations wished to take her home on the fifth day, and were with difficulty persuaded to leave her in hospital. Under the treatment stated the spasms became less frequent, and then ceased altogether. The amount of thyroid gland was gradually decreased, and stopped after a few weeks, and the patient made a good recovery.

I regard the case as particularly interesting on account of the recovery, as all writings on the subject speak of tetany following operations on the thyroid as a most fatal complication.

ROBERT B. COLEMAN, M.B., Ch.B.

Church Missionary Hospital,
Old Cairo, Egypt.

PITUITRIN IN LABOUR.

THE article in the BRITISH MEDICAL JOURNAL of October 14th, by Drs. Haultain and Swift, on the morphine-hyoscine method of painless childbirth was very interesting to me. I happened to be engaged at an extremely prolonged and tedious confinement at the time. I had administered gr. ½ of morphine and gr. ⅙ of hyoscine in the first stage, and the patient got some much needed sleep. As on previous occasions on which I had used the drugs, I was not satisfied that I had not prolonged the labour—probably I had given the injection too early. It is quite evident, however, that the proper method of procedure, as summarized by Drs. Haultain and Swift, completely bars the use of morphine-hyoscine in private midwifery practice. This is unfortunate on account of the demand there is for "painless childbirth," brought about by the booming of the subject in the lay press. However, I am finding considerable satisfaction in the discriminate use of pituitrin. The injection of 0.5 c.cm. in the late first stage acts like a charm. The initial pains resulting are often very severe and tetanic, often continuous, but soon subside and become more like normal pains. I am satisfied that a quick labour, such as often occurs after the use of pituitrin, is more gratifying to the patient in every way. Chloroform can be used in addition, but instrumental labours in my practice are becoming surprisingly less frequent. In two recent cases of breech presentation it probably saved the infants' lives.

Padiham, Lancs.

A. P. AGNEW, M.B., C.M.