RESULTS

Up to the present we have treated sixteen cases in this way, a total, of course, far too small from which to draw satisfactory conclusions. The growth is not visible or palpable in the whole of its extent, to allow of accurate dosage and placing of seeds, so that the treatment is largely empirical. But we are of the opinion that an operation of such slight magnitude is well worth performing, as gastrostomy or dilatation of the stricture resulting from the healing of the cancerous ulcer is always available as a second line of defence. So far, there have been no deaths resulting from operation, and the immediate results are sometimes little short of miraculous, the patient volunteering evidence of marked improvement in swallowing at the end of a fortnight or three weeks, although the dysphagia may return later. Other cases fail to respond from the start; but against this may be set off the fact that in a large number of cases the growth is so advanced as to shorten life as much by cancerous cachexia as by starvation, and has already extended beyond the wall of the gullet. In fact, one fairly healthy-looking man, with a six months' history of dysphagia, refused operation, and was dead a fortnight later; had he consented, he would, of course, have been classified as a bad result. Our best case is alive and well three years after operation, swallowing normally and gaining weight. Two others lived for fifteen and eighteen months respectively, with a degree of swallowing in one case approximating to normal, and in the other within the limits of comfort and sustentation of weight. Three patients were able to remove their gastrostomy tubes, which had been used previous to operation. One patient who was brought into hospital on the verge of death from starvation and thirst lived for fifteen months after removal of his gastrostomy tube following irradiation.

The question arises as to whether it is better to leave a gastrostomy tube once it has been inserted, in case the oesophagus closes up again, or to remove it if irradiation is successful and risk having to reopen the fistula. We have found it better to put it to the patient, and let him decide. In some cases the patients were submitted to further oesophagoscopy, and in each case the growth was found to have disappeared and to be replaced by a smooth scar; if there was a stricture, it was amenable to dilatation with oesophageal bougies under direct vision. We have had the opportunity of making a post-mortem examination on only two of our cases. One patient died nine months after operation from erosion of his aorta by the growth, which was found to have recurred extensively, together with a chain of secondary glands extending upwards into the neck; incidentally, this was not one of the cases in which the aorta had been penetrated by the introducer. The other died after two months, the growth having spread to the lung and involved the glands.

STATISTICAL SUMMARY WITH SHORT CASE RECORDS

Number of cases treated	...	...	...	16
Alive and well (three years)	...	...	...	1
Lived more than one year	...	...	...	2
Considerable temporary relief	...	...	...	11
Not relieved	...	...	...	2
Able to remove gastrostomy tube	...	...	...	3

Specimen Cases

R. A., 62. Three months' dysphagia. Biopsy: squamous epithelioma. Ten seeds to growth at level of D 7. Two years later: "Quite well, swallows ordinary food, has gained weight." Three years after operation: "Still swallowing well; at work."

W. S., 75. Three months' dysphagia. Admitted in the last stages of starvation and thirst, unable to swallow fluids for forty-eight hours. Gastrostomy. One month later radon to growth at level of D 8. In one week could swallow

liquids; in two weeks could take cornflour and gruel. Re-oesophagoscoped—healed scar. Refused dilatation, preferred to keep gastrostomy tube to supplement mouth feeds. Lived fifteen months.

J. F., 55. Two months' dysphagia. Fluids only. Gastrostomy. Radon to growth at level of D 4. Oesophagoscoped one month later—healed scar on left side, growth still present on right. Twelve more seeds. Gastrostomy tube removed one month later, because swallowing was so good. Died nine months later of erosion of aorta by growth, following reopening of gastrostomy.

R. S., 71. Four months' dysphagia, semi-solids only. Radon to growth at level of D 5. Six months later can swallow bacon and egg, which he seems to prefer for all meals. Oesophagoscoped—healed scar which dilates well with bougies. Is coming up again for further dilatation. The improvement in swallowing was not evident until a month after operation, and we were correspondingly despondent. It is much too early to be optimistic about this case, but the outlook at present is hopeful.

A. G., 68. Five months' dysphagia, soft solids only. Radon to growth at level of D 8. One month later could swallow cheese, bread-and-butter, and fish. Died four months later. This is a typical instance of the temporary improvement observed in the majority of cases.

S. M., 80. Four months' dysphagia, fluids only. Radon to growth at level of D 4. No improvement. Oesophagoscoped two months later; growth smaller in size, but not much altered in appearance. Stricture very tough, will not dilate up. Refuses gastrostomy.

A CASE OF VON RECKLINGHAUSEN'S DISEASE

BY

WILLIAM MARSHALL, M.B., CH.B.

HONORARY SURGEON, PETERBOROUGH AND DISTRICT MEMORIAL HOSPITAL

With a Note on the Psychology

BY

ALEXANDER W. WATT, M.B., CH.B., D.P.M.

(With Special Plate)

Below I append some notes on a complete case of von Recklinghausen's disease, occurring in a man who was also the subject of a right inguinal hernia, which required operation by an unorthodox incision.

He was an agricultural labourer, aged 57, who first noticed some nodules on his chest when he was 16. He could give no family history of a similar condition, but he had not kept in touch with his relatives. He had been twice married, and had a family of nine children, the two eldest of whom, girls of 20 and 15, were stated to have pigmented patches on the dorsum of the forearm.

The whole of the anterior and posterior aspects of his thorax and abdomen were covered with typical nodules—soft, with firm centres, sensitive to touch, and ranging in size from a pea to a hen's egg. There were also nodules on the face, and the scalp was covered with them. The arms and legs were affected to a lesser extent, and there were small nodules on the palms of the hands and the soles of the feet. "Blue spots" were numerous on the flexor aspects of the arms. There was a pigmented area 2 in. square on the medial aspect of the left thigh. There was well-marked bronzing of the skin, especially of the face. The hair of the scalp was markedly coarse. There was none on the chest, but the pubic hair was of the normal adult male distribution. There were no patches of adipose deposit.

Notes on the other systems affected are as follows:

Nervous.—There were no neurological signs or symptoms beyond a slightly increased left-knee jerk, and a left-sided deafness of the conduction type.

Endocrine.—The features were suggestive of the acromegalic type, and the supraorbital ridges were marked. The radiogram showed a definitely deepened sella turcica, but there was no

diminution of the visual fields. There was no glycosuria and no polyuria. Basal metabolic rate by Read's formula was +3. The condition suggested a dyspituitarism—an earlier increased function now being masked by hypopituitarism. The bronzing was not Addisonian—there was no asthenia, the mucous membranes were not affected, and the systolic blood pressure was 130. There was no obvious thyroid dysfunction.

Skeletal.—There was a well-marked scoliosis, convex to the left, extending from the sixth thoracic to the fourth lumbar vertebra. There was some expansion of the head of the left fibula without definite cyst formation.

Psychological.—I am indebted to Dr. A. W. Watt for the following notes, as well as for many helpful suggestions. "The patient is an introvert. Docile in disposition, and serene in temperament, he has no false modesty about his appearance, and no resentment against it. He is companionable, but not sociable, in that he does not actively seek the society of others, but, when included, enjoys their company and conversation, giving them his undivided attention and reasoning to the best of his limited intelligence, which is equivalent to that of a child of 15. Emotionally he is quietly

euphoric, and his attitude to life is stable, equable, and submissive. He expects little from the future, and is content with the past.

The patient was admitted because the dragging pain of his hernia was interfering with his work. The presence of the nodules ruled out any possibility of a truss. In view of the statement (Dick and Illingworth: *Textbook of Surgical Pathology*) that the nodules, if incised, tend to become malignant, the orthodox incision was out of the question. Fortunately the skin of the thigh had comparatively few nodules and was very elastic. An incision was therefore made 3/4 in. below, and parallel to, the inguinal ligament, and the skin retracted over the ligament to give access to the canal. The usual Bassini operation was performed. No nodules were discovered under the skin. Recovery was uneventful, except that the nodules on his back tended to become red with lying in bed.

I am indebted to the house-surgeon, Dr. J. Ivor Williams, for his careful note-taking and advice in posing the photograph.

HYPODERMOLITHIASIS

BY

J. PATERSON ROSS, M.S., F.R.C.S.

ASSISTANT DIRECTOR, SURGICAL PROFESSORIAL UNIT, ST. BARTHOLOMEW'S HOSPITAL

(With *Special Plate*)

The term "hypodermolithiasis" might be expected to refer to any deposit of stone-like material in the subcutaneous tissue, and to include gouty tophi, and calcification in tuberculous foci, cysts, and tumours in, or just beneath, the skin. There is a tendency, however, to limit the use of the term to cases in which subcutaneous calcareous nodules are formed in the absence of any such antecedent skin lesions.

Though calcareous concretions in the skin were described as long ago as the middle of the seventeenth century, the account of a case published by Weber,¹ a Swiss physician, in 1878, is commonly considered to be the earliest record. The close similarity between these concretions and the tophi of gout may be misleading, and it appears that Weber at first mistook calcareous for uratic deposits. The introduction of radiography has eliminated this error, for tophi are not opaque to x rays. The incidence of hypodermolithiasis is difficult to estimate because it seems likely that the disease may sometimes go unrecognized. Five years ago Köhler,² who was evidently careful to exclude cases in which calcification occurred in the deep tissues as well as in the skin, could discover records of only twelve cases, but the number is being steadily increased, especially in the French literature, largely owing to the influence of Thibierge and Weissenbach.³ The present account is being published not merely to bring forward three more examples of a clinical and pathological curiosity, but in order to suggest a method of treatment which appears to be worthy of trial, though an opportunity of putting the matter to the test has not yet presented itself.

CASE RECORDS

Case I

A woman, 28 years of age, complained that her right thumb was becoming larger, her attention having been drawn to it because she was unable to buy gloves that would fit. She is a dispenser, and though she suffered no pain, yet as the swelling of the terminal phalanx of the thumb increased she became aware of slight awkwardness in handling large bottles. At a later date a firm lump appeared in the pad of the left middle finger. Her general health was excellent, but in childhood she had suffered severely from chilblains, and for many years cold had caused the fingers of both hands to "go

dead," an affliction which she had inherited from her father. The effect of exposure to cold was that all the fingers became very cold and pale from end to end, but even during the period of recovery they never became blue. Her sister's fingers reacted similarly, but as she took up cookery her employment provided the ideal conditions for counteracting this inherited tendency to "dead fingers." Dispensing, on the contrary, involves the handling of cold objects, and our patient noticed how the pressure exerted through the pad of her right thumb when grasping a large bottle would cause more intense pallor of this particular part.

On examination the radial pulses were equally full, and the arterial wall felt normal. When warm the skin of the fingers had the natural pinkish hue. It was soft and pliable, and there was no ulceration or scarring. The terminal phalanx of the right thumb was enlarged, owing to a firm, ill-defined swelling or induration on its palmar aspect. The induration seemed to lie immediately beneath the skin, but there were no signs of inflammation, nor were there any white spots visible on its surface. At the tip of the left middle finger there was a similar but much smaller indurated swelling, and at one point a hard, whitish substance seemed to be about to burst through the skin. There were no signs of disease elsewhere in the body.

A radiogram of the hands showed two very clearly defined aggregations of calcareous nodules, in the pad of the right thumb and at the tip of the left middle finger. The bone shadows were of normal density, and there was nothing to suggest a transference of calcium from within the bones (see Fig. 1 on Plate). Estimation of the calcium and phosphorus content of the blood gave normal figures—calcium, 9.9 mg. per 100 c.cm. serum; phosphorus, 3.4 mg. per 100 c.cm. plasma.

On March 20th, 1933, the nodules were excised, and it was found that they consisted of small collections of a gritty and cheesy white substance, embedded in tough fibrous tissue. They were examined by Dr. G. A. Harrison, who reported that they consisted of amorphous matter only, no sodium biurate or other crystals being present, and that they were composed of calcium phosphate with a trace of calcium carbonate.

I was at a loss to explain the condition until Dr. George Simon drew my attention to a paper by Twining and Addey,⁴ illustrated by a radiogram showing a precisely similar picture. The patient they described was a woman, 48 years of age, who had always suffered from a bad circulation, the hands and feet becoming cold and blue in cold weather, or when immersed in cold water. Twelve months previously she began to have pain at the tip of the middle finger of the right hand, and after six months a swelling appeared, showing through the skin as a yellowish "blister," which, when pricked, exuded yellowish-white matter. X-ray examination revealed calcified nodules in the index and little fingers as well

T. B. JOBSON AND G. H. STEELE: CARCINOMA OF OESOPHAGUS, TREATMENT BY RADON

FIG. 1.—Antero-posterior view, showing a double ring of radon seeds encircling the lumen of the gullet in the region of the growth.

FIG. 2.—Similar case. Note pair of radon seeds have wandered from site of growth to pleural cavity (see arrow).

WILLIAM MARSHALL AND ALEXANDER W. WATT:
RECKLINGHAUSEN'S DISEASE

GRAHAM W. CHRISTIE AND RICHARD FAWCITT:
MULTIPLE HYDATID CYST

Radiograph showing three hydatid cysts in lungs.