Bland oily dressings of some sort, or even tannic acid preparations, are much used, but I should now prefer dry sulph-anilamide powder from both standpoints. Its direct application is obviously impracticable; but the affected part is first covered with moistened protective gauze tissue, which is allowed to dry in position, and the powder is then dusted on. Dressings can be carried out as often as necessary without disturbing the protective layer, much after the style of some skin-grafting procedures. The outer surface can be gently washed, dabbed dry, and again dusted from time to time, the whole being covered by gamgee and a bandage.

Finally, there is the case of a superficial tumour with ulceration. Where some form of radium therapy is called for, the use of proflavine oleate as described will usually permit treatment to be carried through for at least a week without change of dressings. Sulphanilamide powder becomes useful, however, after irradiation is concluded, both to control sepsis and to limit reaction by keeping the part as dry as possible. Liberal application under a plain dry dressing is excellent, and changes are as a rule only necessary every three or four days, which is a consideration in a busy out-patient clinic. The absence of purulent discharge is often remarkable, in contrast to what is seen with some other forms of antiseptic treatment. When a small unbroken neoplasm is treated its surface will become a temporary ulcer owing to regression even when surrounding normal skin is unaffected by moist reaction, and the powder method is very helpful here. Its adoption immediately after treatment is finished usually results in a clean dry protective scab over the actual lesion, and on the face no dressing may be needed. This scab falls off, leaving a healthy patch of skin with little evidence of what was previously present. At a later stage, when all reaction has died away, any irradiated skin is often somewhat dry; there is no objection then to the use of a simple lubricant like lanolin or vaseline.

It is appreciated that the subject of antiseptics in radiotherapy is a large one, and that many different substances may prove helpful, but these notes are given in the hope that they may be of some practical benefit, since my own experience has led to the regular employment of the methods in my department.

I have pleasure in acknowledging once more Prof. C. H. Browning's helpful suggestions on the use of antiseptics.

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THE RENAL FUNCTION IN MYXOEDEMA

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Means (1937) has stated that, except for albuminuria, the picture of nephritis is absent in myxoedema. Recently we (Beaumont and Robertson, 1943) described a case of pituitary hypothyroidism in which renal impairment was a marked feature, and we suggested that part of these renal signs might be due to the hypothyroidism. In the present paper seven cases of myxoedema have been studied. The findings are given in the accompanying Table. The second series of observations ("after thyroid therapy") were made three months after treatment was instituted, when the basal metabolism was constant on a maintenance dose of thyroid. In determining the basal metabolism the standards of Aub and DuBois (1917) were employed. The urea clearance of Möller, McIntosh, and van Slyke (1928) was confined to the maximum clearance in view of the errors consequent upon low urine output—i.e., all the tests were made during a diuresis. In carrying out the test of water excretion (dilution test) the subject drank a litre of water in a quarter of an hour, and the urine was collected over the next three hours. A series of five normal healthy subjects gave urine outputs of 840, 970, 1,370, 1,000, 920 c.cm.,

with a mean of 1,000 c.cm. The urine concentration test was carried out according to the instructions of Fishberg (1939): a urine concentration of over 1024 is considered normal.

A study of the results in the Table shows that the urea clearance in myxoedema is low and rises significantly after adequate thyroid therapy ($t=6.05$; $P<0.001$). Of the cases of treated myxoedema only one (Case 5) had a urea clearance within the range of Addis's normals (1917), and this was so when she was still myxoedematous. It would appear that, although thyroid medication improves the urea clearance, it remains subnormal.

Table of Findings Before and After Thyroid Therapy

Case	Basal Metabolism		Urea Clearance (per cent. of Normal)		Urine Output (c.cm.) 3 hrs. after Drinking 1,000 c.cm. Water		Highest Specific Gravity Urine	
	Before	After	Before	After	Before	After	Before	After
1	-41	-1	49	85	800	1,230	1025	1021
2	-31	+8	38	56	660	815	1026	1023
3	-32	0	56	71	1,070	970	1026	1012
4	-32	-2	48	56	672	1,094	1025	1018
5	-37	-9	100	118	1,310	1,360	1027	1014
6	-33	-3	50	75	795	1,310	1021	1018
7	-42	+4	56	78	1,330	1,175	1024	1019
Mean	-35	0	57	77	948	1,136	1025	1018

The water excretion is normal in myxoedema, and after treatment with thyroid no significant change occurs ($t=1.98$; $P=0.1$).

Patients with myxoedema are able to concentrate urine as efficiently as normal people. Treatment with thyroid produces a significant change in the ability to concentrate urine ($t=3.55$; $P<0.01$). As these observations were carried out at least six months after treatment was instituted, and when the basal metabolism was steady, the low specific gravity herein reported does not appear to be due to the diuretic action of thyroid, which is a feature when treatment is first begun.

No other evidence of renal impairment was found despite chemical and microscopical examinations of the urine. Albuminuria was not detected in any case.

Summary

The renal function of 7 cases of myxoedema has been studied before and after adequate thyroid therapy.

The urea clearance is diminished and rises after thyroid therapy. The urea clearance in treated myxoedema, however, still remains below normal.

The other tests of renal function, such as the water excretion and urine concentration, were normal.

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Principles for the prescription of quinine in Germany (*Dtsch. Arzteblatt*, Nov. 1, 1942, 72) include the following: (1) Quinine must not be used as a prophylactic against influenza. (2) It is not to be used as an analgesic or tonic. (3) In the treatment of cardiac arrhythmia, and especially auricular fibrillation, quinidine should be used so far as possible in the place of quinine. (4) The use of quinine as an "ecbolic" in midwifery can be continued. (5) So far as is necessary quinine can still be used besides the synthetic remedies for the treatment of malaria. (6) For the treatment of chills and influenza quinine is indispensable. There is no objection to the use of small quinine doses occasionally in influenza, in combination with ascorbic acid. (7) For the treatment of croupous and bronchopneumonia (also whooping-cough) the injectable quinine preparations can be replaced by the sulphonamides. Only, therefore, in isolated cases should bronchopneumonia be treated with quinine—for example, after operations or in whooping-cough. (8) In suppurating bronchitis and bronchiectasis the injectable quinine preparations are almost always replaced by guaiacol preparations or camphor in oil. Nevertheless, injectable quinine preparations can be used in isolated cases. (9) The use of quinine in sepsis, typhoid, and other general infections is now out of date and can be replaced by amidopyrine.