

Dr. BRONNER, in reply, stated that, in order to prevent the instruments from getting rusty, he used a 1 per cent. soda solution instead of water, and, before putting in the instruments, boiled the soda solution for several minutes.

A CASE OF MYXŒDEMA TREATED WITH GREAT BENEFIT BY FEEDING WITH FRESH THYROID GLANDS.

By HECTOR W. G. MACKENZIE, M.D.CANTAB., F.R.C.P., Assistant-Physician to the Brompton Hospital for Consumption and to the Royal Free Hospital; Medical Registrar to St. Thomas's Hospital.

The accounts published recently in the BRITISH MEDICAL JOURNAL by Dr. Murray and others regarding the treatment of myxœdema by means of subcutaneous injections of an extract of the thyroid gland testify so unmistakably to the beneficial effect resulting therefrom that the method will probably receive a more extensive trial. This mode of treatment is not, however, free from objection. First, it requires the most scrupulous care in the preparation of the extract, the demand for which is never likely to be so great as to enable it to be supplied when manufactured under the ideal conditions at less than an almost prohibitive price, and few medical men have the time to devote to its preparation themselves. Secondly, the application of the remedy sometimes produces alarming immediate symptoms, such as loss of consciousness and tonic spasm; and remoter effects, such as indurated swellings and abscesses at the seat of injection, have followed the use of even the most carefully prepared extract. When it is remembered that these injections have to be personally administered for the remainder of the patient's life by the medical attendant, these risks, however slight in regard to a single application they may appear, become immensely magnified when a long series has to be taken into account.

These objections are of great moment as regards the future use of this plan of treatment, although not in the least detracting from the value and interest of the results which have so far been obtained.

The method of treatment I have been employing is altogether so very much simpler and safer, and so very easily carried out, and the results in the case in which I have tried it have been so striking and encouraging, as well as interesting, that I am induced to publish a short account of it, in order that others may have an opportunity of putting it to the test. The method consists essentially in administering by the mouth either the fresh thyroid glands themselves or a freshly-prepared extract. It is obvious that this mode of treatment can be perfectly easily carried out. No elaborate antiseptic precautions have to be taken. There is no more difficulty in getting thyroids, once it is explained what is wanted, than there is in getting kidneys. All the dangers attending hypodermic injection are avoided.

When I first started with the treatment I was sceptical as to whether any effect at all would result, and I therefore commenced by giving my patient two whole sheep's thyroids

at a time. This amount, however, I consider more than is necessary or advisable, as it is apt to nauseate.

I also on two occasions gave her by the mouth some extract which had been prepared by Mr. White, of St. Thomas's Hospital. The effect on the temperature and pulse as well as on the general condition of the patient has been very striking. Under what I consider was an overdose of thyroid the pulse rate increased to 116, and the temperature on one occasion rose to 100°F., but the maintenance of a normal temperature by proper amounts can, I think, easily be effected.

Probably half a thyroid gland occasionally will prove to be sufficient. The return of perspiration and a feeling of warmth and the disappearance of all swelling from the hands and feet and its great diminution in the face are unmistakable. I have now had the patient under my care for 2½ years and have seen her very frequently during that time. I certainly would not recognise her now as the same person.

In order that it may not be imagined that the effect could be attributed simply to residence in the hospital I shall give as briefly as possible an account of the patient up to the present time.

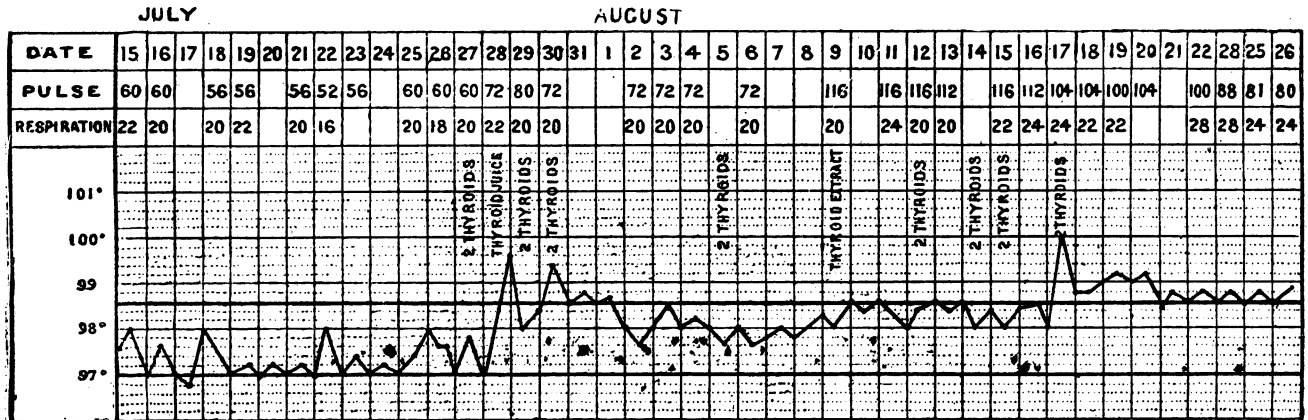
J. L. was first admitted under my care to the Royal Free Hospital in February 1890, suffering from myxœdema, and remained in the hospital for six weeks. She was then aged 37. Her history was as follows: About two years previously she began to suffer from pains in her head, giddiness, and trembling. Her face, hands, and feet became swollen, the hands so much so that her wedding ring had to be cut to prevent it from injuring her finger by its pressure. The swelling of the face was most noticeable round the eyes and lips. Her hair commenced to fall out. She lost her appetite, and the bowels became irregular. She began to feel the cold extremely, and ceased to perspire. She ceased also to menstruate. She became painfully conscious of clumsiness and slowness of movement, and seemed to lose all her strength. Her memory failed, and her speech became not only slow, but thick. She was described on admission as a stout woman, with expressionless face, very thick lips, especially the lower, broad nose, swollen eyelids, deeply wrinkled forehead, and diffusely flushed and swollen cheeks. Her skin was yellowish and waxy looking, and very dry. The hair of her head was very thin, dry, and frizzy. Her eyelashes and eyebrows were also thin. The tongue was large, pale, and flabby. Her temperature was taken regularly during her stay in the hospital, and varied between 95.8° and 98°, averaging about 97° F. Her pulse varied from 52 to 68, the average rate being 64. She was treated during this time with infusion of Jaborandi, which had the effect of making her perspire freely, and produced copious salivation.

The swelling of the face diminished to a certain extent, and the patient left the hospital relieved, but with little real alteration in her appearance or sensations.

The second admission was on April 5th, 1892. Between this time and her former admission she frequently came to see me from time to time. On the whole all her symptoms had been getting worse. She had become much stouter, more clumsy, more easily tired. She was now almost bald on the top of the head. Her face was more swollen. Her skin was very dry and scaly, and, while her face was yellow and waxy looking, her body had a brownish tinge. Her lips were bluish. She complained a good deal of pains in her joints. She was treated on this occasion with perchloride of iron and massage, and left the hospital slightly relieved. Her temperature, which was again taken regularly, varied little from 97°, the highest being 97.5°, the lowest 96.6°. Her pulse varied from 42 to 64; average rate, 54. During this period, as well as during the first stay in the hospital, there was an occasional trace of albumen in the urine. She left the hospital little different from when she entered.

On July 13th she was admitted for the third time. She complained of her feet being much more swollen, and of great difficulty in walking. She was in most respects in the same condition as when she left the hospital, but her lips, which were very swollen, were bluer. Her temperature and pulse during the first fortnight, when no treatment was tried, varied between 98.8 and 98.2; average 97.2.

On July 27th, two sheep's thyroids were pounded and given to her to



eat. Next day her pulse had increased to 72. On July 28th she was given 2 drachms of a glycerine extract which had been prepared from fresh thyroids by Mr. White, the pharmacist to St. Thomas's Hospital. It was given at 11 P.M. At 12 her temperature was 99; at 3 A.M., 99.4°; and at 6 A.M., 98°. She perspired profusely at 6 A.M. Next morning (the 29th) she complained of nausea, and was slightly sick. Her face was flushed, and she complained of aching pains all over. The temperature fell to 98°, but the pulse increased to 80. Two more thyroids were given on the 29th and 30th, and the temperature again rose on the 30th to 99.4°. Between July 30th and August 3rd no thyroids were given; they were then given again, and between August 3rd and August 17th twenty thyroids altogether were given, but on five occasions these were rejected by vomiting, so that it may be considered she had only ten.

The temperature from August 9th to 16th varied between 98° and 98.6°, but on the 9th the pulse rose to 116, and kept between that and 112 for the next few days. On the 17th the temperature rose to 100°; I then discontinued the thyroids. The pulse gradually diminished in frequency until, on the 26th, it was 76. The temperature hovered between 98° and 98.6°. While these changes took place in the pulse and temperature, a striking alteration was noticed in the appearance of the patient. Since I have seen her I have never known her to look as she does now. The face seems about half the size; the features have become defined and expression has returned. Her hands have become normal in size, without a trace of swelling. The skin of her hands and feet has desquamated. She has perspired freely, and has had a comfortable sensation of warmth. Altogether a very marked change for the better has taken place. The improvement is, in fact, unmistakable, and such as can only be attributed to the remedy. I may add that no diuretic action has been observed.

To sum up the effects observed in this case: (1) A marked acceleration of the pulse and rise of temperature proportional to the quantity of thyroid given, these persisting for some time after the administration is discontinued. (2) A general diminution of the swelling and amelioration of all the symptoms accompanying myxœdema.

In the administration it has been found that it is less nauseating when given with a little brandy. In another case, as I have already mentioned, I should be inclined to commence the treatment with either one thyroid every other day or half a thyroid every day. If it is found that this is well tolerated and does not produce any marked effect, the dose can be easily increased. The method is one which experience will no doubt much improve on; but it will be a great advance if further observation confirms what has been observed in this case—that a remedy, easily obtained, taken by the mouth should produce marked improvement in a disease hitherto intractable except by hypodermic and somewhat risky injections.

A CASE OF MYXŒDEMA TREATED BY TAKING EXTRACT OF THYROID BY THE MOUTH.

By E. L. FOX, M.D., M.R.C.P.,
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E. M., aged 49, came under my care at the Plymouth Dispensary in March last. She at that time exhibited all the typical symptoms of a well-marked case of myxœdema. I showed her at a meeting of the Plymouth Medical Society, and consent was unanimous in favour of myxœdema.

The disadvantages of having to treat cases of myxœdema by continued hypodermic injections are many and obvious. I was therefore induced to try the effect of thyroid extract when taken by the mouth. I directed the patient how to prepare a glycerine extract of half a sheep's thyroid, on much the same lines as laid down by Dr. Murray. Of the extract thus prepared she was to take half one hour before breakfast and the remainder one hour before supper, and to continue doing so twice a week.

She commenced the treatment on June 2nd. On July 11th she showed very visible signs of improvement; her facial expression was decidedly brighter, her speech was better, and she felt generally much stronger.

On September 12th the improvement had continued. The skin was soft and perspired freely: the œdema was much less. She was ordered to take half a thyroid, lightly fried and minced, to be taken with currant jelly once a week, and to continue taking the extract once a week. By mistake she took the minced gland twice a week for a fortnight; she then noticed she was getting rapidly weaker, profuse perspirations breaking out on the least exertion; she was unable to walk or stand steadily. She left off taking the gland on September 22nd and began rapidly to recover her strength.

On October 17th she considered herself well, and better than she was two years ago when the symptoms of myxœdema first began. Her condition now is in every way satisfactory. Her face has assumed its ordinary proportions, her speech is normal, the œdema has gone, and menstruation has returned.

I have reported this case, as the method of administering the remedy is simple in the extreme, and in my case, at all events, the result has been satisfactory. If I had another case to treat I should begin with small doses of the minced gland, as that seems to be more potent, gives less trouble in preparation, and is preferred by the patient.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

NOTE OF A CASE OF PROLONGED HÆMORRHAGE CAUSED BY CYSTIC OVARITIS.

THERE are some points about the following case which make it, I believe, of sufficient interest to record briefly; though, of course, since Mr. Lawson Tait drew attention to the subject, small cystic ovaries have been recognised as a frequent cause of metrorrhagia. In this case the patient was in about six weeks reduced to such a degree of exhaustion that operation was rendered particularly risky; she was blanched with loss of blood, which scarcely intermitted a day, and the pain she suffered was of an exhausting nature.

Mrs. E. consulted me in April, 1891. She was a pale, thin blonde, 52 years of age, whom I had treated occasionally for gall stones, perhaps three times in six years, but who had otherwise been quite healthy. She had never been pregnant, and had menstruated normally up to some eight months previously, when she became irregular, missing occasionally, till January, 1891. After that period was over she saw nothing for three months, until early in April she commenced to be unwell, and when the flow had continued some ten days sent for me to check it. The quantity was not very large, usually three or four diapers a day, but sometimes with, and at times without, exertion the discharge came much more profusely. She complained, too, of lancinating pain in the hypogastrium, not affected by pressure; but she had much pain on defecating and on coitus. On examination I found the uterus of normal size, but retroverted. Behind it, in Douglas's pouch, was a nodular, elastic body, as large as a bantam's egg, which was exquisitely tender to pressure, and which remained *in situ* when the uterus was gently raised. Examination did not increase the hæmorrhage. I put the patient on ergot and bromide of potassium, and confined her strictly to bed.

Some weeks of this treatment had no effect on the pain or bleeding, and the patient was getting very exhausted. I feared from the great pain, the persistent hæmorrhage, the bad condition of the patient, and, more, from the rapid onset and development of these symptoms in a woman who was under the impression she had passed the climacteric that there was malignant disease of the ovary; and Dr. Braithwaite, who saw the case with me, concurred.

We agreed, however, that at least an exploratory operation was desirable at once, in the hope of finding appendages which could be removed with a prospect of relieving the patient. I therefore proceeded to operate on May 21st, at Kirkburton, assisted by Dr. J. A. Smith. I made the usual incision in the middle line $\frac{1}{2}$ inch in length, but had to enlarge it subsequently 1 inch downwards, as it was impossible to bring either ovary to the surface of the wound.

The left ovary was enlarged to the size of a small egg, and firmly adherent to the *cul-de-sac* from which it was separated and pulled up with its tube. The Staffordshire knot was applied too low in the pelvis for the pedicle to be seen, as the parts could not be brought up without risk of tearing. I was materially helped by my assistant elevating the pelvic floor with his fingers in the vagina. This ovary contained three cysts, one of which, as large as a filbert, was filled with blood clot. The right ovary was smaller than normal, hard and leathery, and was also removed with its tube. No drainage tube was inserted. The patient made an uninterrupted recovery. The temperature never reached 38° C.; there was no vomiting, no flatulence which the rectum tube did not relieve, and since May 27th there has been no hæmorrhage whatever. The patient remains perfectly well, and much stronger than before the illness which brought her to me.

It is as impossible to explain the cause of these hæmorrhages which accompany cystic ovaries as it is to explain menstruation. Something that is removed in Tait's operation—for *pace* Mr. Bland Sutton, I have removed and seen removed ovaries which were completely removed without checking menstruation—is concerned in each case. Whether it is a nerve centre that exists somewhere in the parts removed, or whose influence is transmitted along these structures, either through Johnson's nerve or by the sympathetic distributed along the vessels or by some other route, we are no nearer knowing than ever. But once completely remove ovaries and tubes close up to the uterus, menstrea-