hæmorrhage from the right lingual artery eleven days after the removal of the whole tongue. An anæsthetic was administered and the artery tied in the floor of the mouth, after which he made a steady recovery.

In an old man, aged 72, severe bleeding took place on the day of the operation, not from the tongue but apparently from the back of the throat. I thought he must have died of this; but after some time the hæmorrhage ceased and he slowly recovered, but his recovery was seriously retarded by the loss of blood.

2. Complicated operations, 16: removal of half of the tongue and lymphatic glands, 2; removal of the whole of the tongue and lymphatic glands, 1; removal of half of the tongue, ligature of the lingual artery in the neck, removal of glands, etc., 10; removal of the whole tongue, ligature of the lingual artery in the neck, etc., 3.

These complicated operations were for the most part recovered from with greater difficulty than the uncomplicated operations. Infiltration took place from the wound in the mouth into the deeper wound in several of them, and, in one case in which this occurred, the patient was for two or three weeks seriously ill. Since then I have almost invariably drained the lower wound for the first few days after the operation, a precaution which I had seldom previously taken.

In one of these patients, 51 years old, hæmorrhage occurred six days after the operation from a deep cavity which had been made in the floor of the mouth, and recurred during three or four days. It was ultimately arrested by thoroughly clearing out the wound to the bottom, and plugging it with iodoform gauze. And in a man, aged 49, secondary hæmorrhage set in from the wound in the neck nine days after the operation. The hæmorrhage was arrested also by plugging, and the patient slowly recovered.

A patient, aged 45 years, was seized with a rigor on his return to the ward immediately after the operation, and for five days in succession his temperature was between 101° and 102°. I was naturally anxious on his account, examined the wound in the mouth carefully day by day, and had the external wound dressed much more frequently than I should otherwise have done. But the most careful examination failed to discover sufficient cause for his condition, and I could not but observe that he did not seem really very ill. On the sixth day he was attacked with acute gout in the great toe (he had been subject to gout), when his temperature fell to normal, and remained there until his discharge from the hospital.

The fatal case was that of a man, aged 71, who suffered from an epithelioma of the anterior portion of the left half of the tongue, and associated enlarged glands. I removed the left half of the tongue, the enlarged glands, and tied the lingual artery in the neck. The operation was performed on September 18th, 1891. In the course of a day or two the wound in the neck was foul, apparently from the sinking down of discharges into it from the mouth; it had not been drained. The patient had rigors and high temperature. He appeared to improve for a while after the condition of the wound had been bettered, but he finally died on October 22nd, five weeks after the operation. There was no *post-mortem* examination.¹

I have thought this series of cases worthy of publication on account of the almost complete absence of general septic poisoning and of septic affection of the lungs. At first I thought that my success was but a part of the general success which at the present time attends these operations, but hospital statistics and tables show that this is not the case, and that the percentage of deaths after such operations as I have put together above is still considerable, and that nearly all the deaths are due either to general or to pulmonary sepsis. Such septic conditions are by no means limited to

¹ At the time this lecture was delivered I believed that I had had a series of 25 cases without a death, for I had overlooked this case. I performed the operation during the long vacation for one of my colleagues, and only took charge of the patient until his return to town at the end of September. The man was not in Mr. Smith's ward, to which I was at that time assistant surgeon, and I really did not know of his death, for his name is not entered in the registration book in which the cases under the care of Mr. Smith and myself are placed. Fortunately, before I sent the lecture for publication, my attention was called to the case, for the result of which I am, of course, wholly responsible.

the larger operations or to those in which the entire tongue has been removed. But I regard the complicated operations as more dangerous than those which are not complicated by any external wound, and I would rather remove the whole tongue than one-half of the tongue, and at the same time perform a severe operation on the side of the neck.

So far as I can judge, the manner of performing the operation has less to do with the recovery of the patient than the after-treatment. I greatly prefer Whitehead's method of removing the tongue with scissors to any other method, and have exclusively employed it for six or seven years. But other surgeons still prefer to use the *écraseur*, and remove the whole or large portions of the tongue with it very satisfactorily.

No special care was taken to select the forty-six patients on whom these operations were performed. In every case in which it appeared likely that an operation would benefit the individual and prevent recurrence in the mouth it was undertaken, even if he was in a bad state of health. For the sufferings endured by those persons who die of actual cancer of the tongue moved me to extend the operation, even for the sake of palliation, to persons on whom I should not otherwise choose to operate.

A CLINICAL LECTURE

o:

TWO CASES OF LUPUS TREATED BY THYROID EXTRACT.

Delivered at the Edinburgh Royal Infirmary.

By BYROM BRAMWELL, M.D., F.R.C.P. EDIN.,

Assistant Physician to the Edinburgh Royal Infirmary.

[WITH SPECIAL PLATE.]

TO DAY I propose to bring before your notice two cases of lupus which have been treated and materially benefited by the internal administration of thyroid extract, and by this treatment alone.

I have already explained my reasons for employing the thyroid treatment in cases of psoriasis. The desquamation and the remarkable improvement in the nutrition of the skin which the remedy produced in the first case of myxœdema, which I had the opportunity of treating by thyroid feeding, suggested to me that the remedy would probably be beneficial in some skin diseases. The rapid and marked improvement which occurred in the first case of psoriasis in which I employed the thyroid extract confirmed this opinion, and led me to suggest that it would probably be useful in ichthyosis, exfoliative dermatitis, and perhaps in other forms of skin disease. Now, just at the time that I was making my first experiment in psoriasis, this girl, M. M., was sent into my ward by Drs. Allan Jamieson and Norman Walker, suffering from lupus, in order that she might have her face scraped; and, after observing the case for a time, I determined, before anything was done to the face, to try the effect of the thyroid treatment.

I was anxious to give the remedy a trial in lupus for two reasons:—

1. As an experiment. Having observed the benefit which seemed to be produced in the course of a few days in psoriasis, I was anxious to see whether it might not possibly produce some improvement in lupus. But I must confess that this, the purely experimental reason, did not hold out to my mind any reasonable hope or expectation of success. Psoriasis is one thing, lupus is another and quite a different thing. Lupus is one of the most intractable and incurable of all skin diseases. The mere fact that the remedy was useful in psoriasis—a disease which often spontaneously subsides, and which, in individual cases, is beneficially influenced by many different forms of treatment—did not, to my mind, afford any adequate reason for supposing that it would be beneficial in lupus.

2. But I had another and, as I thought, a more satisfactory and promising reason for hoping that the thyroid extract

might be beneficial in lupus. Lupus is generally regarded as a tuberculous affection of the skin. Now patients affected with myxœdema not infrequently die from tubercle. In the first part of my *Atlas of Clinical Medicine*, I have referred to a case of myxœdema, in which the patient died at the age of 72 from extensive miliary tuberculosis of the lungs and peritoneum. The important point in the case is this, that diffuse tuberculosis is very rare in old people. Professor Greenfield has also directed attention to the liability of myxœdematous patients to tubercle. Knowing then that myxœdematous patients often die from tubercle, I concluded that they probably have a special liability to tubercle. I reasoned that, if this is so, it is perhaps the fact that the absence of thyroid secretion from the juices and tissues of the body predisposes to the production of tubercle. Further, I reasoned that if the absence of thyroid secretion predisposes to the production of tubercle, the converse proposition, namely, that thyroid extract may perhaps prevent the development of tubercle, or exert a beneficial influence upon tuberculous lesions which are already present, and particularly upon tuberculous lesions of the skin (for I knew that the thyroid extract had a markedly beneficial effect upon the nutrition of the skin), may perhaps turn out to be the case.

Let me now briefly detail the history of these two cases and the effects of the treatment.

CASE I.—HISTORY.

The patient (M. M.) aged 16½, was admitted to Ward 5A, on January 25th, 1893. The history which she gave of the previous course of the disease was as follows:

In 1884, nine years ago, when she was 7 years of age, a small brown spot appeared below the angle of the jaw on the right side. It gradually extended, being sometimes better, sometimes worse. Her mother did not pay much attention to it, as "she thought it was just from glands."

In 1888 a little knot appeared below the right eye; it burst and ulcerated. She consulted a doctor, who told her to leave it alone, and gave her some medicine. This patch gradually extended, until it finally became continuous with the patch which had commenced at the angle of the jaw.

In 1890 the patient consulted Dr. Allan Jamieson, at the infirmary. She was sent to Dr. Muirhead's ward, where she remained for eight weeks, the disease being treated with local applications. After being in the infirmary for three weeks the patient had an attack of erysipelas, the result, she says, of sitting in a draught. She was confined to bed for eight days. The erysipelas extended from the right ear over the face, scalp, and back of the neck. On recovering from the erysipelas the patient was sent home. When she came back to the infirmary to show herself the face was considerably improved. In the course of a short time the disease again got worse, and extended to the opposite side of the face.

In January, 1891, the patient was again admitted into the infirmary under the care of Dr. Muirhead, and was treated by injections of Koch's tuberculin. After the fifth injection erysipelas developed. This (the second) attack of erysipelas was worse than the first. The patient was removed to the Observation Ward, where she remained for seventeen days. On her discharge the lupus was considerably improved; she says that the doctor thought that the erysipelas had done it good. She was readmitted to Ward 25, and had four additional injections of tuberculin; she was then sent home considerably improved. The face remained fairly well for about a year; the disease then again developed. About this time the patient had a third attack of erysipelas. It was severe. She was confined to bed for three weeks. After this attack the lupus seemed somewhat improved, but the improvement was very temporary. The disease soon extended, and became much worse than it had ever been before. Accordingly, the patient again consulted Dr. Allan Jamieson, who sent her to Ward 5A, to which she was admitted on January 25th, 1893, as stated above.

Condition on Admission.—The condition of the face at the time of her admission is accurately represented in the accompanying illustrations (see Figs. 1 and 2). The disease was, you will see, extensive. The nose, left cheek, and upper lip were thickly covered with scabs; a ring of scabs extended from each angle of the mouth down to the chin; the lower lip and the skin immediately beneath it were unaffected. An extensive cicatrix, in the midst of which there were many ulcerated patches and lupus nodules, covered the cheeks. The cicatrix was of a deep red colour. The edges of the cicatrix were thickly studded with lupus nodules, and there were several outlying nodules ("satellites," as Mr. Jonathan Hutchinson would term them) in the adjacent sound skin of the cheeks and face. The cicatricial tissue which covered the cheeks was hard and brawny. The patient's general health was good. There is nothing that need be noted with regard to the general condition except this, that she had never menstruated. The family history need not detain us; it is unimportant.

TREATMENT AND ITS RESULTS.

Some days after the patient's admission to hospital, an ointment containing salicylic acid was applied to some of the scabs and lupus ulcerations. The result was a marked increase in the redness and suppuration. The application was therefore discontinued, and nothing more was done until February 13th, when a quarter of a lobe of raw thyroid gland was given, finely minced and concealed in rice paper.

On February 15th, 17th, 22nd, 24th, 26th, 28th, and March 2nd and 4th, half a lobe of fresh thyroid was administered.

On March 6th, 20 minims of Brady and Martin's extract, and on March 8th and 10th half a lobe of fresh thyroid were given.

On March 11th, 10 minims of Brady and Martin's extract, and on March 12th, half a lobe of the fresh gland. This dose—10 minims of Brady and Martin's liquid extract one day, and half a lobe of the fresh gland the next day—was continued until March 22nd, when the dose was reduced to 5 minims of the liquid extract, and a quarter of a lobe of the fresh gland on each alternate day. The patient continued to take this dose—5 minims one day and a quarter of a lobe of fresh thyroid the next day—until April 13th, when the fresh gland was finally discontinued, and 15 drops of Brady and Martin's fluid extract of thyroid were given every day. This dose was continued until May 15th, when the patient was sent to the Convalescent Home. The results of the treatment were as follows:

February 14th (the day after the thyroid treatment was commenced). The patient feels sick, and complains of feeling tired and sick; she was therefore kept in bed.

February 16th. The patient says she is much better, and that she is hungry. The temperature has risen to 99° F. The face feels less hot, and it certainly looks less red and angry. Some of the crusts seem to be drier than they were before the treatment was commenced.

February 18th. The patient says that the face feels a great deal better, and that it is not nearly so tight. There is more suppuration over the nose. The patch below the right eye seems to be improving.

February 21st. The patient says that she feels quite well. There seems to be rather more suppuration, and some fresh crusts over the left cheek. In other places where the lupus nodules are small—as on the right side of the face below the eye—there is a distinct improvement.

February 23rd. The half lobe of thyroid, which was again administered yesterday, has not produced any sickness or disturbance.

February 27th. The patient continues to feel quite well.

March 1st. Some of the crusts have fallen off, the face is certainly better; it is much cooler looking and less red.

March 17th. The patient says that the feeling of heat and tightness in the face has entirely disappeared. Most of the crusts have disappeared from the right side of the face, leaving a healthy cicatrix in their place.

April 13th. The fresh thyroid to be discontinued and the patient to take 15 minims of Brady and Martin's extract every day. The face continues to improve. Some of the scabs on the right cheek, upper lip, and nose, have fallen off. The redness has almost entirely disappeared; the outlying nodules are much less noticeable.

May 15th. The patient was to-day sent to the Convalescent Home. The face looks very much better than it did at the time of her admission to the hospital. During her stay at the Convalescent Home the patient is to continue the thyroid treatment and to come in at the end of a fortnight to show herself.

I may here note that on several occasions, between February 13th and May 15th, the thyroid extract was purposely discontinued for a few days, in order to observe the effects of the remedy. The invariable result was that the face became more red and injected when the remedy was discontinued, and that the redness perceptibly diminished shortly after the extract was resumed.

May 28th. The patient came in to show herself to-day. The face continues to look well.

Erysipelas.—May 29th. The patient was sent back to the infirmary this morning looking collapsed and ill. It seems that she returned to the Convalescent Home yesterday on the top of an omnibus, the face being exposed to a cold wind. During the course of the evening she had a shiver; she then became feverish and ill, and was accordingly sent back to the hospital this morning. She was sent to the Observation Ward, for there was a patch of commencing erysipelas on the right side of the face. The temperature was 103° F., pulse 130. Ichthyol ointment was applied locally, and tincture of the perchloride of iron (20 minims every four hours) and quinine (5 grains every six hours) were given internally.

The attack of erysipelas proved to be severe, the whole face, head, and adjacent parts of the neck were involved. The highest temperature reached was 104° F. During the attack of erysipelas, the hair, which was very luxuriant, was cut short.

On May 5th the temperature, which the previous night had been 103.6°, fell at midday to the normal. After this convalescence was rapid.

On June 20th the patient was readmitted to Ward 5A, feeling, she said, quite well. The scabbing round the mouth and on the left side of the face is rather less marked than before the attack of erysipelas, but the redness and injection have distinctly increased. Five drops of thyroid extract to be taken daily.

The photograph which is represented in Fig. 3 was taken on June 22nd. On comparing it with those which were taken at the time of her admission (January 25th, 1893), it will be seen that the disease has distinctly improved. This improvement was due to the thyroid treatment and not to the attack of erysipelas.

June 23rd. The face is not nearly so red to-day.

June 27th. The patient says that the face feels quite cool.

June 28th. The patient complains of sickness and faintness and pain in the lower part of the abdomen. The thyroid extract was accordingly suspended for two days.

July 3rd. The face looks very much better; it is much paler.

July 28th. The patient says that she feels weak and shaky. She complains of pain in the lower part of the abdomen. Thyroid stopped.

In the paper which I read at the Newcastle meeting of the British Medical Association,¹ in referring to the case I said: "I have administered thyroid extract in one case of lupus with the effect of apparently producing distinct improvement." That statement does not convey an adequate idea of the degree of improvement which had taken place at this date (July 28th). But the statement was made with a purpose. In reporting the results in this and in all the cases of

¹ See BRITISH MEDICAL JOURNAL, October 28th, 1893, p. 934.

skin diseases which I have treated with thyroid extract, I have been most careful to guard against any exaggeration, and have habitually and purposely underestimated rather than overestimated the degree of improvement which has from time to time taken place.

After this date I did not see the patient until

September 2nd, when I returned from my holiday. The following note was then made: During the past month the patient has not had any thyroid extract. The face looks more red and injected and distinctly worse than it did on July 25th, the scabs are more numerous. The thyroid treatment to be again commenced—two tabloids every day.

September 9th. The face looks decidedly better; it is less red, some of the scabs have again become detached.

September 20th. The patient looks pale and says she feels ill. She complains of pain in the lower part of the abdomen, headache, and sickness. Thyroid stopped. Fomentations applied over the abdomen.

On consideration I came to the conclusion that this attack was probably due to a menstrual disturbance rather than to the thyroid extract. The patient had never menstruated. On June 28th and July 28th she had complained of similar symptoms (pain in the abdomen, headache, sickness, faintness, and general *malaise*) and on inquiry I ascertained that a similar attack had occurred towards the end of August, no thyroid having been administered for a month previously. The occurrence of subsequent attacks of a similar kind (on October 21st, November 25th, December 30th, and January 26th, 1894) proved, I think, that this opinion was correct.

September 25th. The patient is better. Thyroid treatment resumed.

September 29th. The patient feels quite well. The face looks better than it has done since the treatment was commenced. Many of the scabs have disappeared. The patient says that the face has never been so well since the disease became severe five years ago.

October 14th. The face continues to improve.

October 21st. The patient again complained of pain in the abdomen, weakness, headache, and general *malaise* (menstrual disturbance). Thyroid suspended.

October 28th. The patient feels quite well; thyroid resumed.

November 4th. The patient was discharged very much improved but not cured.

November 13th. The patient was readmitted for further treatment. The face does not look quite so well as it did a fortnight ago. Ten minims of thyroid extract to be taken each day.

November 20th. Face again improving.

November 25th. Menstrual disturbance (pain in the lower part of the abdomen, headache, general *malaise*) again recurred but there has been no menstrual flux. Thyroid suspended.

November 28th. Patient feels well; thyroid resumed.

December 13th. Dose of thyroid increased; 30 minims of Brady and Martin's extract (three 10-minim doses) each day.

December 20th. Patient shown to the Medico-Chirurgical Society.

December 30th. Menstrual disturbance, same symptoms as before; thyroid suspended.

January 3rd, 1894. Thyroid resumed; 10 minims three times in the day.

January 14th. Patient complains of headache and vomiting; tongue clean; pulse 108; face very much flushed; thyroid omitted.

January 16th. Patient better; thyroid resumed.

January 17th. Patient was again shown to the Medico-Chirurgical Society.

January 20th. Patient sent home for a time.

Additional Note.—On February 3rd the patient returned to the infirmary, and the following note was made: The face looks remarkably well, and the patient says that she feels much stronger and better. Since her discharge a fortnight ago she has been taking a smaller dose of the thyroid—two of Burroughs and Wellcome's tabloids each day. To continue to take two tabloids daily. A few days after going home she had another menstrual attack.

February 10th. Face red and angry-looking; rather more superficial scabbing.

February 12th. Three tabloids, instead of two, daily.

February 18th. Face looking very well, less red, fewer superficial scabs.

The photographs (reproduced in Figs. 4 and 5) show the condition the face on January 7th. On comparing the photographs with those which were taken before the thyroid treatment was commenced, you will see that a remarkable improvement has taken place. This improvement is entirely the result of the internal administration of thyroid extract. During the time—almost a year—which she has been almost continuously under thyroid treatment, either in or out of hospital, no local application of any kind has been employed. The patient has not even been allowed to wash the face with soap. None of the scabs have been artificially detached. The disease, so far as local treatment is concerned, has been left to take care of itself.

The disease is not yet cured, but it is very greatly improved. There is, I think, reason to hope that further treatment will produce further improvement; but whether in the course of time a cure will result it is impossible to say. The patient and her friends state that the face has never been anything like so well as it is now since the disease became severe five years ago. But it is only right to state that the vascularity of the face varies considerably from

time to time. As a rule, the face and cheeks are pale (this was the condition when the photographs reproduced in Figs. 4 and 5 were taken). Every now and again, and without any apparent cause, the cicatrix becomes much more deeply injected, and the lupus nodules which still remain much more apparent; these attacks are generally followed by the formation of new superficial scabs on the unhealed parts. These vasomotor changes are partly, perhaps, the result of the prolonged administration of the thyroid extract, and partly the result of the general condition of the patient. She is anæmic, and for the past two months has been very easily upset. The fact that she has never menstruated, and that the menstrual flux is "trying to appear," probably accounts in part for this constitutional (vasomotor) instability. How far the prolonged administration of the thyroid extract may be the cause of the anæmia and debility I am not prepared to say. (The marked improvement in the general condition of the patient, which took place between January 20th and February 3rd, when the dose of thyroid was reduced in quantity, seems to show that the anæmia and general debility were in great part due to the prolonged administration of large doses of the remedy). But, be that as it may, the general condition of the patient undoubtedly constitutes a difficulty in the further treatment of the case. It prevents us pushing the remedy as we otherwise would feel disposed to do. The anæmic condition naturally suggests the administration of iron; and for a few days iron and arsenic, in small doses, were administered, but they were almost immediately discontinued, for under their use the hyperæmia and redness became aggravated. For a fortnight prior to January 20th the patient took small doses of quinine and strychnine. These remedies have not had any material influence upon her condition. The remarkable improvement which has taken place cannot in any degree be attributed to their use.

Note on the Subsequent Course of the Case.—After the lecture was delivered the patient remained much *in statu quo* until February 28th, when she was discharged. On March 31st, when she came to report herself at the infirmary, the nose was decidedly worse, the other parts of the face if anything better than at the time of her discharge a month previously. She was feeling well, but was still very anæmic. The dose of thyroid was increased from two to three tabloids per diem.

The next case I wish to bring before your notice is that of R. D., who was admitted into Ward 27 on December 13th, 1893, suffering from extensive and old-standing lupus of the face. Many of you are well acquainted with the case, for, during the past year, the patient was more than once in Ward 5, under the care of Mr. Cotterill.

CASE II.—HISTORY.

The patient, a girl aged 18, has suffered from the disease since she was 10 years old, that is, for eight years.

In 1886 a small patch of lupus developed at the outer angle of the left eye. Three months afterwards the disease extended to the outer and inner side of the left nostril and gradually involved the adjacent parts of the face.

In 1887—about a year after the disease commenced—the patient was admitted into the infirmary under the care of Mr. Joseph Bell. She remained in the infirmary for eight months. During that time the face was scraped five times. Very decided improvement resulted from these repeated operations, but when she left the infirmary the disease was not healed. Unfortunately, the improvement was only temporary; soon after her discharge from hospital the disease again began to develop, and gradually extended over the greater part of the face. Nothing more was, however, done until the year 1893.

On January 9th, 1893, she was admitted into Ward 5, under the care of Mr. Cotterill. The disease was then very extensive; it involved the greater part of the face. The face was scraped and afterwards washed with superfat soap, and dusted with aristol. The result was eminently satisfactory, for the patient was discharged from the infirmary towards the end of January, the ulceration being healed.

She returned to the infirmary in May, the lupus having recurred towards the end of March. The ulceration was much less extensive than at the beginning of January. The face was again scraped. Very distinct improvement again resulted from the operation. The patient was discharged from the infirmary in the middle of June much better than at the date of her admission, but the lupus ulceration was not completely healed. A small patch remained unhealed between the nose and the mouth. Two months after leaving the hospital the disease again began to develop; the ulceration extended round the mouth, involved the nose, and finally attacked the right eye.

At the beginning of December she was again admitted to the infirmary under Mr. Cotterill's care. One day, on going round Ward 5A, I happened to see the patient, and the idea at once occurred to me that the case would be a very suitable one to try the effect of the thyroid treatment—a bad case of lupus, and therefore a good test case. I accordingly requested Mr. Cotterill to transfer the patient to me, and he very kindly

and generously consented. It was in this way that the patient came under my notice.

TREATMENT AND ITS RESULTS.

The thyroid treatment was commenced on December 13th, 1893, 5 minims of Brady and Martin's extract being given each day. The patient was placed on the ordinary diet of the hospital, no local treatment of any kind being employed.

On December 17th the patient was shown to the members of the Medico-Chirurgical Society. At that time the treatment had not produced any perceptible effect. My object was to afford the members of the Society an opportunity of seeing the disease in its original (untreated) condition.

On December 18th, the dose was increased to 10 minims, and on December 27th to 15 minims of Brady and Martin's extract, night and morning, that is to say, 30 minims per diem.

On January 9th, one tabloid was added to this dose of the liquid extract. From this date till February 3rd the patient continued to take one of Burroughs and Wellcome's tabloids, and 30 minims of Brady and Martin's liquid extract every day. The result, up to the present time, has been a decided and, comparatively speaking, rapid improvement.

On January 9th (the day of your return after the Christmas holidays) you will remember that I asked you to state individually your opinions as to the change which had taken place in the condition of the face during your absence (a fortnight). Every one of you, without exception, said that it looked better. Some of you were chiefly struck by the marked diminution in the vascularity, the cheeks and cicatrix were much less red. Most of you said that the scabbing was less extensive. Both statements were correct.

Within a month from the commencement of the treatment, unmistakable improvement had taken place (see Figs. 6 and 7). The improvement has steadily continued up to the present time.

After the thyroid treatment had been employed for ten days or a fortnight, the scabs began to dry and contract. At the end of a month some of the superficial scabs had fallen off, leaving a smooth cicatrix in their place. By comparing the photographs (which are reproduced in Figs. 6 and 7) you will see that the greater part of the scab around the right eyelid has been detached, and that the scabbing is less extensive on the left side of the nose, inner side of the left nostril, left side of the mouth, at the angles of the mouth, and on the lower lip. The redness of the face is markedly less, and the little outlying nodules of lupus tissue are much less apparent. The girl herself says that the face is much better; it feels, she says, "less tight." She also states that the inside of the mouth and the eyelid—for the disease not only affects the outer surface of the lips and cheeks, but it extends for a short distance on to the mucous membrane covering the adjacent part of the lower lips and cheek, and it involves the conjunctiva—feel better. The discharge from the ulcers which cover the nose and mouth is much less than it was before the treatment was commenced. (The secretions from the nose and mouth, which run over the upper lip and over the angles of the mouth, interfere with the rapidity of the healing; they keep the scabs over which they flow moist).

We may confidently say, then, that between December 23rd and January 9th a decided improvement had taken place, and that the improvement has been maintained up to the present time.

On January 17th the patient was again shown to the Medico-Chirurgical Society, and on February 2nd to a conjoint meeting of the local Branches of the British Medical Association.

During the six weeks that the patient has been under treatment the appetite has been good and there have been no unfavourable symptoms. The temperature has remained, if anything, subnormal, but the pulse frequency has increased. The pulse has varied from 80 to 112, the average being from 95 to 100.

(At the end of the first week of the treatment the conjunctiva of the right eye became inflamed, in consequence, apparently, of the pus from the ulcerated lid being retained and getting into the eye. The eye was consequently covered with a shade and the conjunctiva was bathed with a weak solution of tannin—cold tea. In the course of a few days the conjunctivitis was better and the shading and bathing were discontinued.)

February 3rd. Liquid extract stopped; to take three tabloids daily.

February 8th. Pulse 120; headache; temperature 100°; gumboil forming. To remain in bed; dose of thyroid reduced to two tabloids; face looking very well.

February 9th. Patient better; to get up.

February 18th. Has continued to take two tabloids daily since last note; the face continues to improve; is looking better to-day than it has done since the treatment was commenced; the scabbing is less extensive.

Note on the Subsequent Course of Case 2.—The improvement has slowly continued and now (March 31st) the face is better than it has ever been since the treatment was commenced; but it is yet far from cured.

In this case the improvement has perhaps been more rapid and more striking than in the first case. In this, as in the first case, absolutely nothing whatever has been done in the way of local treatment; the patient has not been allowed to wash the face with soap, and none of the scabs have been artificially detached even when they were loose. The only treatment which has been employed has been the internal administration of thyroid extract.

I trust that the improvement, which is already considerable, will continue, and, judging from the result of the treatment during the past six weeks and from the remarkable improvement which has occurred in the first case, there are good grounds, I think, for expecting that this will be the case.

At present it is premature to say more than this: that both of these cases of lupus have been benefited—the first case greatly benefited by the treatment. I have no wish to exaggerate the improvement; I prefer to err on the side of caution. I do not say that it is possible to cure lupus by the internal administration of thyroid extract. The results which I have up to the present time obtained do not warrant any such conclusion. But I do say that in some cases of lupus a remarkable improvement does undoubtedly result from the thyroid treatment. The improvement which has been effected in these two cases leads me to hope that in some cases of lupus a complete cure may perhaps, after a prolonged course of treatment, result.

I think I am fully justified in stating that the effect of the treatment in these two cases of lupus has, up to the present time, been satisfactory. As I have already told you, lupus is a most intractable disease. Cod-liver oil and other remedies, which improve the condition of the general health, and remedies such as creasote, guaiacol, etc., which are useful in tuberculous affections of the internal organs, are no doubt to some extent beneficial in lupus; but, so far as I know, they do not, unless combined with local treatment, produce any directly curative effect upon the disease. I have never heard (but my acquaintance with the literature of lupus is not extensive) of anyone having ever seen, in two consecutive and unselected cases of lupus, the same amount of improvement produced by any internal remedy given by the mouth, as has resulted from the thyroid treatment, in the two cases which I have brought before you. So far as I know, the universal experience of all physicians and surgeons is that in cases of severe and actively-progressing lupus, remedies which are given by the mouth are powerless, in the absence of all local treatment, to arrest the active progress of the disease. In actively-progressing lupus, local means of treatment (scraping, thermo-cautery, free excision, the application of caustics, acids, etc.) are, so far as my information enables me to judge, in this country universally employed. No one, so far as I know, claims to be able to arrest the progress of the disease by any drug remedy given by the mouth alone.

Midway between the local and internal means of treatment, Koch's tuberculin plan of treatment (the subcutaneous injection of tuberculin) should perhaps be placed. Some three years ago, when Koch's treatment was for a time the rage, the injections of tuberculin were extensively employed in lupus. The treatment produced intense local reaction (great swelling and inflammation of the affected part), very profound constitutional disturbance, great elevation of temperature, and in some cases even death. The inflammatory condition which developed at the seat of the disease seemed in many cases to eradicate, for a time at least, the lupus. In many cases the lupus ulcerations were completely healed after a course of tuberculin injections, but in almost all cases, so far as my information enables me to judge, the disease after a time relapsed. I have never employed this plan of treatment, either in lupus or any other tuberculous affection, and, so far as I know, no one employs it now, in this country at least. As originally introduced it was a dangerous plan of treatment. In a modified and improved form it is still used on the Continent, and is said to be a satisfactory method of treating lupus. But this question need not detain us. My object is not to give a lecture on lupus, nor to contrast the different methods of treating lupus, but to give you my experience—very limited, it is true—of the effects of the thyroid treatment. You may naturally, perhaps, say that two cases are altogether insufficient to allow of any reliable conclusion. That would be a legitimate argument in the case of many diseases, but it applies much less forcibly to lupus than to most other diseases; for actively-spreading lupus does not tend of itself to get well. In actively-spreading lupus that source of fallacy can be eliminated. It is impossible, I think, to doubt that the improvement which has taken place in these two cases is the direct result of the thyroid treatment.

We will continue to watch the result in these two cases, and no doubt before long we shall have other cases with which to test the treatment.²

² My object in publishing these cases in their present incomplete state is to direct the attention of the profession to the subject, in the hope and expectation that other independent observers will give the treat-

In the two cases of lupus which I have brought before you, the improvement has, as I have already stated, been entirely effected by the internal administration of thyroid extract. I do not say that this is the best method of treating lupus. I fancy that the most effective means of treating the disease in all probability is to administer thyroid extract internally, and at the same time to employ some one or other of the various local applications or methods of surgical treatment, which experience has shown to be useful and beneficial. In these cases of lupus, as in the cases of psoriasis and ichthyosis which I have treated by thyroid extract, I have purposely avoided any form of local treatment. My object has been to see whether the thyroid extract, administered by the mouth, produces a beneficial effect upon the disease.

THE POSSIBILITY OF THE THYROID TREATMENT BEING BENEFICIAL IN CASES OF INTERNAL TUBERCULOSIS.

The improvement which has resulted from the thyroid treatment in these two cases of lupus has naturally suggested to me the possibility (I do not go so far as to say the probability, for, so far as I know, there are no good grounds for assuming that the thyroid secretion exerts the same beneficial effects upon the nutrition of the internal organs—the nervous tissues perhaps excepted—as it does upon the nutrition of the skin) of the thyroid extract being useful in other forms of tuberculous disease. This idea occurred to me many months ago, when I first became satisfied that unmistakable improvement was being produced in the case of M. M. I have prescribed the remedy in one or two cases of phthisis, but without any apparent benefit. It is only right, however, to say that up to the present time I have not made any real and serious trial of the remedy in cases of phthisis. Thyroid extract in full doses is apt to produce considerable depression. I have hesitated to run the risk of producing this depression in phthisical patients; and in the very few cases of phthisis in which I have employed the remedy I have so far been content to give very small doses.

Before employing the remedy in phthisis it would, I think, be advisable to test the effect which it produces in cases of scrofulous disease of the cervical glands, bones and joints, in which the disease is not sufficiently advanced to demand operative treatment. If the result is beneficial, the remedy might then be tried in suitable cases of phthisis and other forms of internal tuberculosis.

I need not say that in treating cases of phthisis and other forms of internal tuberculosis by any new plan of treatment, very great caution is required in judging of the results. There are many sources of fallacy. I need not stop to discuss them now.

THE POSSIBILITY OF THYROID EXTRACT BEING BENEFICIAL IN LEPROSY.

It is probable, I think, that the thyroid extract produces its beneficial effect in lupus by improving the nutritive condition of the skin tissues, and enabling the cells to overcome the invading tuberculous organisms which are the active agents in the production of the disease or to resist the prejudicial effects which the toxins generated by the bacillus produce upon them. If this theory as to the mode of action is correct—and it is, I think, more probable than the alternative theory that the thyroid extract has a directly antagonistic action on the tubercle bacillus—it is not improbable that the remedy may be beneficial in other diseases of the skin (possibly in some general diseases and diseases of the internal organs) which are due to micro-organisms. Now there is a micro-organism, very similar in structure to the tubercle bacillus, which produces lesions in the skin, which in their chronicity closely resemble lupus. I refer to the bacillus of leprosy. Many months ago the idea occurred to me that thyroid extract might perhaps be beneficial in leprosy as in lupus. I mentioned this to Dr. Allan Jamieson at the beginning of October, when we were sitting together in the saloon of the Royal Hotel at the presentation

of the gift of the citizens of Edinburgh to the Duke and Duchess of York. I have not had the opportunity of trying the effect of the remedy in leprosy. We very rarely see cases of leprosy in Edinburgh; indeed, I have only had one case (but it was a very marked case) under my care during the fifteen years that I have been in practice here. I was, therefore, very much interested to see that Dr. Abraham had given the thyroid extract in three cases of tubercular leprosy of the skin, and that some improvement had been produced.

For the reasons I have stated to you, it is eminently desirable, I think, that the remedy should be thoroughly tried in leprosy. It is possible that it may be found to exert a beneficial effect both on the skin lesions, and on the leprosy lesions of the nerves and other tissues.

THE POSSIBILITY OF THYROID EXTRACT BEING BENEFICIAL IN CASES OF CANCER.

There is another disease in which I think it is perhaps just possible—I carefully guard myself from saying more than this—that the thyroid extract may be useful, and that is cancer. As yet I have only given the remedy in one case of cancer, the case of a woman who was admitted to Ward 27 on November 8th, and who left the hospital (notwithstanding my strong advice to the contrary) on December 20th. She was suffering, you will remember, from an abdominal tumour which was diagnosed as cancer, probably connected with the body of the stomach. During her stay in hospital that patient undoubtedly improved; she was firmly persuaded that the tumour decreased in size, and some of us were disposed to think that her opinion was perhaps correct. Now I do not wish you to think that I attach any importance whatever to the result of the treatment in that particular case. The improvement in the general condition of the patient might, of course, be quite readily explained by, and was I think in all probability due to, the improved conditions in which the patient was placed during her stay in hospital (rest in bed, careful feeding, etc.); and I attach no importance whatever to the slight diminution in size of the tumour (if there was any diminution) which perhaps took place. The only thing which the case proves is this—that the possibility of the thyroid extract being beneficial in cancer occurred to me some months ago. I merely suggest this as a possibility. I do not put it forward even as a probability. You may perhaps think I am mad on thyroid extract, that I am pushing this idea to an insane extreme, but it is not so. I have certainly been building therapeutic castles in the air; but it is sometimes advantageous to allow one's scientific imagination to have some play. The scientific imagination, if kept within due bounds and if directed and guided by reasoning based on some foundation of clinical fact, is a valuable aid to scientific inquiry and therapeutic discovery.

The idea that the thyroid extract may possibly be useful in cancer is based on the following reasoning:—The remedy is undoubtedly beneficial in some cases of lupus. It probably produces benefit in lupus by strengthening the resisting power of the tissues, and enabling them to overcome and destroy the tubercle bacillus. Some recent pathological observations suggest that cancerous growths are perhaps due to an organism. Cancer is essentially a disease of old age. The reason why cancerous growths—if cancer is due to an organism—chiefly occur in old people is probably this, that the tissues of the old are unable to resist and withstand the invading organism. Possibly, then, if cancer is due to an organism, the thyroid extract may help the tissues to resist, or even to expel, the cancerous organism, as I suppose it helps them to overcome and to expel the lupus organism.

That is my chain of reasoning; but I have another possible link to add to it. In a discussion on the pathology of the thyroid gland at the Newcastle meeting of the British Medical Association, Professor Victor Horsley suggested that the dry, wrinkled, atrophic condition of the skin in old age is perhaps due to diminished or defective thyroid secretion. After I heard Professor Horsley's suggestion, the idea occurred to me that it might perhaps have some bearing upon the subject which I am at present discussing. If the thyroid secretion is defective in old age, the increased liability to cancer which old people present may, perhaps,

ment a trial. But the trial to be satisfactory must be a fair one, the treatment must be carefully and persistently carried out for a prolonged period (for several months at least) in the wards of a hospital. I trust that the treatment may be found to be beneficial both in out-patient and private practice, but the trial (test) cases should (in order to show whether the treatment is really effective or not) be continuously observed in the wards of a hospital.

Fig. 1.—Lupus (M. M.); showing the condition before treatment, February 13th, 1893.

Fig. 2.—Lupus (M. M.); showing the condition before treatment, February 13th, 1893.

Fig. 4.—Lupus (M. M.); showing the condition on January 7th, 1894, after eleven months of thyroid treatment.

Fig. 5.—Lupus (M. M.); showing condition on January 7th, 1894, after eleven months of thyroid treatment.

Fig. 3.—Lupus (M. M.): showing the condition on June 22nd, 1893, after recovery from attack of erysipelas. The improvement which is noticeable was not due to the erysipelas, but to the thyroid feeding.

Fig. 4.—Lupus (R. D.): showing the condition on December 12th, 1893, before thyroid treatment commenced.

Fig. 7.—Lupus (R. D.): showing the condition on January 13th, 1894, one month after the thyroid treatment was commenced.

Fig. 8.—Lupus (R. D.): showing the condition on February 16th, 1894, two months after the thyroid treatment was commenced.

in some degree be due to the same cause. And conversely, the administration of thyroid extract may possibly, by strengthening the resisting power of the tissues of old people, enable them to withstand, or even perhaps to expel, the organisms which are perhaps the cause of cancer.

This reasoning is, you will observe, entirely theoretical. As I have already said, I have no facts which show that the thyroid extract is of the slightest use in cancer. I hope you will clearly understand my position in this matter. Do not go away and say that I believe, or that I have suggested, that thyroid extract will cure cancer. I have made no such statement; I make no such suggestion. All I say is that for the reasons I have stated to you I am anxious to see the remedy tried in cancer. I think it is just possible that it may be beneficial in cancer, and especially, perhaps, in cancer of the skin. I repeat that I have no facts to support this idea—this bare possibility. But any plan of treatment which affords even the remotest possibility of being useful in such diseases as leprosy and cancer deserves a trial. This is my reason for bringing the matter before you and—through the pages of the BRITISH MEDICAL JOURNAL—before the profession.

I may add that I should like to see the remedy also tried in xeroderma pigmentosum, in epitheliomatous conditions of the skin, and in rodent ulcer.

NOTE.—The thyroid treatment of ichthyosis will be considered in a subsequent communication.

AN ANOMALOUS CASE OF STONE IN THE BLADDER IN A FEMALE.

BY JAMES OLIVER, M.D., F.R.S. EDIN.,
Physician to the Hospital for Women, Soho Square.

F. B., aged 30, married ten years, had had five children. The last child was born twelve months before the patient came under my observation. It was suckled for two months only, but the menstrual discharge did not reappear until six months after this confinement.

Since six weeks after this confinement she had complained of passing a thick purulent-looking material with the water and the motions. There was pain during and after micturition, which continued for about half an hour. She had never passed any blood with the water. She stated that ten years ago the abdomen became much enlarged, but the swelling suddenly disappeared when an unusually large quantity of urine was passed. The first child was born eight years ago.

There was nothing to note about the abdomen. The cervix uteri, which was lying towards the left side of the pelvis, was much torn. In front of the cervix was felt a short ridge in the vaginal roof, and anteriorly this ridge terminated in a small nodule which was tender to the touch. The body of the uterus was slightly and uniformly enlarged.

The catheter was passed, and on being withdrawn impinged against a solid body, which proved to be a phosphatic calculus with a uric acid nucleus. The stone was embedded in a pouch of the bladder. The urine drawn off was muddy and offensive; it contained a large quantity of pus, and its specific gravity was 1023.

REMARKS.—Ten years before this patient came under observation she had probably suffered from hydronephrosis, and it is quite possible that the calculus which produced this disorder was the nucleus of the stone removed from the bladder. Augmenting in size, it had probably lain during these years in a pouch or diverticulum of the bladder without producing any untoward symptom until the fifth parturition excited some inflammatory disturbance in the tissues which surrounded it.

MEDICAL MAGISTRATES.—Dr. T. J. Higgins, Louth, Lincolnshire, has been placed on the Commission of the Peace of the county of Lincoln.—Mr. J. West Walker, M.B. Lond., of Spilsby, President-elect of the Midland Branch, has been appointed to the Commission of the Peace for the Parts of Lindsey, county of Lincoln.

THE ELEVENTH INTERNATIONAL MEDICAL CONGRESS.

Held in ROME, March 29th to April 5th.

[FROM OUR SPECIAL CORRESPONDENTS.]

AN ADDRESS ON THE PART PLAYED BY NERVOUS DEBILITY IN THE PRODUCTION OF FEVER.

Delivered before a General Meeting of the XIth International Medical Congress, held in Rome, 1894.

BY PROFESSOR BOUCHARD,
Paris.

HAVING had the honour of being invited to present to the Congress the result of some of my observations or experiments, I have chosen some which relate to fever, and which, in some respects, appear to me to be of a nature to throw light upon questions of physiology, pathogeny, and pathology which are still undecided. What I have to submit to my colleagues is not a synthetic exposition of doctrines as to fever, but a series of fragmentary studies in which clinical facts, very common, but, perhaps, somewhat neglected, have been grouped, analysed, and controlled by experiment.

CAUSES OF RISE OF TEMPERATURE IN DEBILITATED PERSONS.

A fact which has, doubtless, been very frequently observed, but of which little mention is made and of which little explanation is forthcoming, is that patients suffering from fever who are brought to hospital have, at least four times out of five, a temperature higher by one degree and more than they will be found to have on the morrow and ensuing days. It is a well-known fact that visits received by patients suffering from fever cause an immediate rise in their temperature, and that during convalescence when the fever has subsided these visits often make it reappear in the form of a short, but sometimes violent, paroxysm. It is well known that an article of food taken inopportunistically during the course of a continued fever increases that fever, and that in febrile diseases the first food allowed is very often the occasion of a fresh rise of temperature. It is also known that muscular fatigue exaggerates or rekindles fever; that the getting up for the first time is often in the case of a patient who has recovered from typhoid the occasion of a rise in temperature, and that phthisical patients are often found, on returning even from a very moderate walk, to have a temperature higher by two degrees than when they set out. Lastly, I would call attention to the fact that in persons who are weakly or who are actually ill or who are convalescent, an intellectual or emotional disturbance is sufficient to rekindle or to induce fever. These causes do not produce fever in a healthy man, nor is the fever which is seen to follow them in persons who are ill generally attributed to them. Indeed, inasmuch as these facts, which daily observation confirms, are undeniable, they are interpreted in a different way. Thus, it is said that indigestion, bodily or mental fatigue, moral disturbances—factors whose etiological part in the development of diseases has been established empirically—may act in the same way to aggravate these diseases or to interfere with recovery therefrom. According to this view, the nervous, muscular, or digestive disturbance aggravates the typhoid fever or the tuberculosis; the fever is produced by intensification of these diseases and not by the disturbing influence, which is only an indirect cause. My belief is that these returns of fever, produced under such diverse circumstances by causes