A REMARKABLE EXPERIENCE CONCERNING LEPROSY; INVOLVING CERTAIN FACTS AND STATEMENTS BEARING ON THE QUESTION—IS LEPROSY COMMUNICABLE THROUGH VACCINATION?

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THE time seems to have arrived when, without injury or offence to anyone concerned, it is possible to bring under the notice of my medical brethren some facts, and some inferences arising more or less directly out of the facts, in a case which occurred to me some years ago, but which I have found it necessary hitherto to deal with as involving matters of professional confidence not suitable for publication. Even now I shall deem it expedient to frame this mere narrative in such terms as shall not point to any definite locality, or to any recognisable person, among those chiefly concerned; although, by a formal certificate granted only the other day, I feel, as it were, absolved from the last tie that bound me, even under the most fastidious sense of professional duty, to reticence.

Six or seven years ago the parents of a young boy, fairly healthy in appearance, but with a peculiar eruption on the skin, brought him to me, and along with him a letter from a medical gentleman whom I had entirely, or almost entirely, forgotten, but who stated himself to have been a pupil of mine in Edinburgh considerably over twenty years before. It is unnecessary to enlarge on the particulars of this case further than to state that, after more than one most careful examination, in which I had the assistance of my colleague, Professor McCall Anderson, we came to the conclusion which we announced to the parents, that the boy was suffering from incipient, but still quite well-marked, leprosy in its exanthematous form; a diagnosis afterwards amply confirmed. What struck me at the time as most peculiar was, that this case, coming from a well-known endemic seat of leprosy (an island within the tropics) and with a letter involving medical details by a medical practitioner of many years' local experience; sent to me, moreover, for medical opinion and guidance, should not have been more frankly dealt with by a diagnosis announced even to the parents, before they left the island. The father of the child was a sea-captain constantly engaged in long voyages—for the most part between this country and the island alluded to. Both father and mother were Scotch, and there were several other children, all reported as quite healthy, as also were both the parents. Under these circumstances I wrote to the medical man—who in the sequel may be called, for brevity, Doctor X.—simply stating the diagnosis arrived at, and indicating the line of treatment proposed. The parents were informed that it would be best for the child to live in this country, and his mother agreed to remain with him accordingly. And, as they appeared anxious to have every available suggestion and advice, I mentioned the name of Dr. Robert Liveing as having given much attention to the subject, and offered to write to him if they would take the boy to London, as they appeared desirous of doing. Although I wrote to Dr. Liveing, circumstances unknown to me led to a change in their plans, and, instead of going to London, they went to Manchester, where I believe some physician was consulted, but I do not remember who he was. Ultimately, the mother determined for a while to settle in Greenock, and I placed her accordingly in communication with Dr. Wilson of that town, who for some time thereafter remained in medical charge of the case.

Meanwhile, the course of post brought me in a few months a reply from Dr. X., not only entirely assenting to our diagnosis as communicated to him, but stating that he had been perfectly well aware from the first of the case being one of leprosy, but had deliberately chosen not to affirm the fact or even to allude to it in any way, either in his communications with the parents or in his letter to me. No reason was assigned for this (as it appeared to me) very remarkable reticence; but, as I did not wish to have the credit of having discovered for the first time what a gentleman so much more familiar with the disease might have been supposed to have overlooked, I took means to inform the parents of Dr. X.'s reply, and of his having been all along of the same opinion with regard to the disease as we were.

After this the matter passed out of my mind, and for several years I neither saw nor heard of this child except accidentally and in a way entirely to confirm first impressions. About three years ago, however, while engaged in lecturing on specific diseases, and among others,

briefly, on leprosy, I made an effort to find out something more about this patient. The mother had removed from Greenock, and had brought over the whole family to Helensburgh, where, as I learned, they were visited by Drs. Reid and Sewell, and from the latter I now learned that the poor boy had gone steadily to the worse, and was extremely feeble, covered with sores, and in a most deplorable condition physically, but still receiving every attention and care that constant medical treatment, with the most faithful and loving maternal nursing, could afford to lighten his sufferings. I accordingly proposed, within the next few days, a visit to my old patient as a matter of satisfaction to myself. Unhappily there was no other apparent object, either as regards diagnosis or treatment, for a visit which was, nevertheless, very gratefully accepted.

The case was now in the most advanced stage of leprosy, proceeding to mutilation of the extremities, and accompanied not only by external sores, but presumably by internal lesions, which had reduced the patient to the last stage of emaciation. It was on this visit that the curious particulars now to be related were first brought to my knowledge by Dr. Sewell, and afterwards confirmed by the statement of the mother, showing very clearly, though, of course, upon second-hand information to a certain extent, that Dr. X. had a very special reason for his extraordinary reticence in the first instance. Her husband, who in his frequent voyages had opportunities of coming into communication with Dr. X., had remarked to him how very strange it was that, even in writing to a medical man about the case, he had given no hint of his opinion about it. The Doctor's reply to this was, in the end, to the effect that he had kept silence because he did not wish to compromise a boy of his own, whom he (Dr. X.) believed to be a leper, and from whom he believed at the time that the boy he had sent to this country had become infected with the disease. He further explained that he had vaccinated his own boy with virus derived from a native child in a leprosy family, and, as I understood (though perhaps not definitely so stated) that leprosy had declared itself in the native child after the vaccination; and, further, that (using his own child as a *vaccinifer*) he had vaccinated our patient directly from him. Before sending the last-named patient away with his parents, he had satisfied his own mind not only that his own boy was leprosy, but that he had in this way become the source of the disease to another; but, the disease in his own child being in a very mild form, he was anxious not to disclose its existence. Meanwhile Dr. X. had died; his estate had passed into the hands of trustees; and I was informed that this reputed leper-boy had been, under the instructions of his father and his guardian, placed and retained at a public school well known to me in this country, and that the boy was pursuing the usual course of a public-school education, in entire unconsciousness of the disease with which he was supposed to be affected.

This information, so communicated, placed me in rather a difficult dilemma, namely—was I justified in taking steps to ascertain the truth of the story as regards Dr. X.'s boy, either by personal investigation or, at least, by inquiries conducted so as to result in a well-grounded and scientifically exact opinion as to the facts? And, further, supposing that such opinion should turn out to be that Dr. X.'s boy was a leper, was it a matter of duty on account of others to formally disclose the fact, be the consequences to the boy what they might? It was hardly probable that a boy generally known to be a leper would be retained permanently in any public school in this country, even had it been unquestionably a matter of medical doctrine that such a proceeding was quite safe. On the other hand, the boy was receiving the benefits of an English education at the express wish and on the responsibility of his father and guardian, and without (so far as appeared) any misgivings on the part of anyone. He was an orphan, and in what was to him a foreign land; his remaining under instruction might be, and probably was, a matter of the greatest possible importance to him. To bring him, therefore, even by an indiscreet inquiry, under the ban which in many or most countries still attaches to leprosy was certainly no part of the business of an outsider, and could only be justified at all by an overwhelming sense of duty to others.

Under these circumstances I thought it well to consult, privately, one or two of those friends in London whom I believed to know most about leprosy, and among others Dr. Liveing, whom I was able to remind, at this stage, of my previous letter. These friends concurred in assuring me that, in the rather improbable event of their being personally consulted as to the retention of a leper in a public school (it being presumed, of course, that he was physically fit otherwise), they would have no hesitation at all in affirming that the other boys would not be endangered by such proceeding. As I happened to be very well acquainted with one of the medical officers (though not the ordinary medical officer) of the school in question, I communicated these

opinions to him, and stated to him at the same time the extraordinary circumstances which had begotten, for me, such a lively interest in the son of Dr. X. In the course of a few days I was informed that an inquiry had been held by the medical staff; that the boy had been sent for and privately examined (though not ostensibly ill in any sense); and that it was, beyond all doubt, considered to be a case of leprosy. The medical authorities decided, however, that under the circumstances it was not their duty to sound the alarm, or in any way to disturb the boy's education.

From this time onwards (except the death of the first patient soon afterwards) I heard nothing more of these matters till a few weeks ago, when I was asked to see Dr. X.'s son professionally on behalf of the school-authorities; and, if so advised, to request Dr. Anderson also to give an opinion as to the present state of health of this young man, who happened at the time to be visiting some friends in Glasgow. It was represented to me that he had maintained, on the whole, fairly good health since I last heard of him through my medical friend, and had not been incapacitated from school-work except on account of a contagious eczema which had been prevailing, and with which he had been affected in common with other boys. Apparently, however, the opinion had arisen that his general health was not quite so good, and that in view of a cutaneous affection of this kind, apparently communicable, existing, it was no longer expedient that he should remain at the school. Indeed, I could not but come to the conclusion that his removal, on public grounds, had been practically settled; and with every desire to soften the blow as much as possible to the poor boy, it was felt to be necessary that his guardian, at least, should receive unequivocal and unbiassed testimony as to the actual state of the facts and circumstances under which the decision was arrived at. Under these circumstances I saw and examined this boy, and made a report, along with Dr. Anderson, to the effect that the disease was evidently leprosy, though of a remarkably mild type, as shown by discolorations and cicatrices, and also by large anæsthetic areas on the back of one limb. All breaches of surface, however, and all discharge had ceased at the time of our report, and Dr. Anderson felt still in a position to affirm that no danger to others could occur from the boy's remaining at school. On this last point I did not feel able to give an unqualified assent to my colleague's opinion; but as regards the matters of fact and observation there was no doubt whatever, and our report accordingly on these was substantially as above.

A NEW OPERATION FOR HEPATIC ABSCESS.

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THE following operation has been performed by me with excellent results for more than two years. I therefore think that a short account of my method may be of interest to surgeons and practitioners who may have cases under their care.

The operation consists in making a large opening sufficient to expose the whole cavity of the abscess, and in thoroughly cleansing it of all pus and debris of sloughing hepatic tissue. It may be divided into three stages: 1. Exploration of the liver; 2. Opening the abscess; 3. Cleansing the abscess-cavity.

1. *Exploration of the Liver.*—After having well washed the skin with a brush and soap and water and a 2 per cent. solution of carbolic acid, an exploring trocar is plunged into the liver to find the abscess; this exploratory puncture may have to be repeated several times, so that a good idea may be formed of the size and direction of the abscess.

2. *Opening the Abscess.*—An opening is made with the thermo-cautery into the lower third of the abscess, five to seven centimetres (two to nearly three inches) long, according to the size of the abscess, and as much as possible in the direction of its greatest diameter. This opening must be sufficiently large to enable the surgeon to see the whole cavity with ease when the edges of the opening are held well apart by retractors. To obtain this result in abscesses of the left lobe an opening in the soft parts will suffice; but if the abscess is in the right lobe, resection of one or two ribs will be necessary. This resection is also performed with the thermo-cautery, using an elevator to detach the periosteum, and Liston's bone-forceps, care being taken not to wound the intercostal artery; should this, however, happen, the hæmorrhage will cease as soon as the abscess is opened. After resection of the bone, the abscess is opened with the thermo-cautery, keeping always in the direction of the resected rib, and with the aid of two strong retractors held by an assistant, while the margins of the incision are kept open, they are pressed against the liver, and kept in close contact with the abdominal and thoracic walls, so as to prevent either pus, or the liquids used for washing out the abscess, from find-

ing their way into the abdominal or pleural cavities. If this precaution be observed, no harm will result, even should there be no adhesion between the wall of the abscess and the parietal peritoneum; for when once the abscess has been thoroughly washed and cleansed, adhesions will be established before fresh pus can accumulate. In fifty such operations performed by me during the last two years, no purulent matter has ever escaped into the pleural or peritoneal cavities, although cases were operated upon in which no adhesions existed.

3. *Cleansing the Abscess-Cavity.*—The retractors being still held in the position already described by an assistant, a strong current of warm distilled water is allowed to play within the abscess-cavity by means of a siphon; every particle of adherent pus and necrosed tissue is removed with the fingers, or with sponges fitted to proper holders, and the washing-out is continued until the walls of the cavity look perfectly clean, often granulating, and the water returns clear. The retractors are then withdrawn, two drainage-tubes of large calibre are inserted in the cavity, and the dressings applied, which are left undisturbed for twenty-four hours; the cavity is then washed out again with warm distilled water, as above described, and the current kept on until the water returns perfectly clear.

As a rule, the temperature becomes normal immediately after the first washing, but if fever should reappear, or if the pus is abundant, the washing-out should be repeated every twelve hours; if, in spite of all this, the fever persists, or diarrhoea sets in, this would indicate that other abscesses exist in the liver, and such cases are invariably fatal.

OPHTHALMIC REPAIR AND SENILE DECAY.

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AMONGST the many interesting facts which Professor Humphry has noted in connection with longevity, there is none which at the first glance causes more surprise than that people of advanced age possess, as a rule, remarkably good healing power. Every experienced surgeon could, however, bear witness to the correctness of the Professor's observation, and I have recently had several cases under my care which show that not only will wounds in such a delicate organ as the eye unite by first intention in very aged patients, but that the healing process may make steady progress towards completion while the physical powers are in the last stage of exhaustion and decay.

I had arranged to operate for cataract in the spring of last year on a nobleman, aged 84, when I was informed by his medical attendant, Mr. Tegart, that the patient was suffering from gangrene of the foot, which, of course, necessitated the postponement of the ophthalmic operation. The patient was, however, extremely anxious that an effort should be made to restore his sight, and in the following September he had recovered a sufficient measure of health and strength to justify me in removing the cataract. The eye was rendered completely anæsthetic with cocaine, and I made my incision at the corneal-scleral margin, completing it through the tissue of an arcus senilis, which I have always found to possess good healing capacity. As the lens did not yield readily to moderate pressure, I removed it with a spoon, and without any loss of vitreous. All went well till the fifth day, when the patient had an alarming fainting fit, and remained in a state of collapse for some hours.

Although he rallied somewhat from this attack, he speedily relapsed into others of a similar character, and in spite of the most careful nursing and the constant attendance of Sir William Jenner and Mr. Tegart, he gradually grew weaker, and sank at the end of six weeks from the commencement of his last illness. I frequently examined the operated eye and tested the sight, and I was surprised to find that, notwithstanding the great physical weakness, the process of repair proceeded at the usual rate and in the most perfect manner. The vision was excellent, the patient being delighted to recognise the faces of those around him, and, with a suitable lens, telling the time by a watch correctly.

I had a similar experience last year with a lady, aged 93, who, despite an attack of apoplexy with hemiplegia six days after an operation for cataract, was able to heal my incision by first intention. I have quite recently operated for cataract on two clergymen, aged respectively 92 and 96; and in both cases, although the patients were in feeble health, the elder of them being unable to move from chair to chair without assistance, the wounds have healed well, and the sight has been fully up to the usual standard. Encouraged by these results, I lately offered to operate on a lady in reduced circumstances, who has