Notes of a Clinical Lecture ON RECOVERY FROM PYÆMIA.

DELIVERED AT ST. GEORGE'S HOSPITAL.

BY

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IN Grosvenor Ward, bed No. 9, is a lad, aged 16, who was admitted into the hospital on December 4th, 1861, with a large hard swelling on the middle of the front part of the right thigh. This swelling, deeply situated and ill-defined, was exquisitely painful—so much so, that he could hardly bear it to be touched; and the skin covering it was of a slightly reddish colour. Besides this swelling, there was a whitlow of the right middle finger, the top of which, very much swollen and painful, was of a dark purplish colour, with foul suppuration oozing out of several ulcerated openings; and the joint between the last two phalanges was extensively diseased. The boy looked ill; he had an anxious sunken countenance; the general colour of the skin was remarkable for its leaden hue; and there were symptoms of irritative fever. The history was that the whitlow had, without any apparent cause, made its appearance three weeks previously: it was very painful, and he felt very ill, but was able to go about his work—that of a page; then, at the end of a fortnight, without any injury or strain, he suddenly felt great pain in the thigh; was obliged to take to his bed; that night had a violent rigor; and the following day found that the thigh had taken to swelling. Matters had gone on thus for a week, with recurrence of the rigors, when he was brought to the hospital. He had always enjoyed good health, lived well, in a healthy part of the town, and took plenty of exercise.

The diagnosis was obvious: it was from pyæmia that the boy was suffering. But what was the prognosis? With the secondary mischief centred in the thigh, and with all the internal organs healthy, we might, I told you, fairly hope that the case, although of a very dangerous nature, would ultimately do well. In a few days, deep-seated fluctuation became evident in the centre of the swelling, which gradually became more and more defined. The parts were laid open as soon as possible, and a large quantity of foul matter, mixed with clots of blood, was let out. Free suppuration continued for several days; the general symptoms soon began to mend, and the finger put on a much healthier aspect. From this time, the improvement steadily continued; the mischief in the thigh has subsided, and the wound is all but healed; there is no longer any suppuration about the finger, and soft ankylosis has already taken place in the diseased joint. The skin generally has assumed a healthier aspect, and the countenance has become bright and cheerful. The boy is now sitting up, and will shortly be discharged from the hospital. As to the treatment, that has been of the simplest kind—good and generous diet, with a fair proportion of stimulants; bark and acid when the appetite began to fail; and poultices to the thigh. This was all that was called for, and this was all that was done.

tices to the thigh. This was all that was called for, and this was all that was done.

In this lad, the secondary mischief was confined to the external parts; and whenever this is the case, there is a fair chance of recovery, notwithstanding the formidable nature of the complaint. And of several cases of this kind which have fallen under my notice, I will now give you a short account.

A young cavalry officer, strong, very active, and apparently in excellent health, whilst under my care for gonorrhœa, was suddenly seized with what is commonly called gonorrhœal rheumatism. Several joints became involved, and for some time matters went on much as is usual in such cases; but then came rigors, with symptoms of a low, typhoid character. Shortly afterwards, the body was covered with a crop of pustules; several small abscesses formed in various parts of the trunk and limbs; and suppuration took place in and around the left sterno-clavicular articulation; the matter was let out. Subsequently, the right hip put on all the characters of deep-seated suppuration, and the joint became so exquisitely painful, that the slightest vibration, even from a person walking inadvertently across the room, caused the patient to shriek. Extreme emaciation followed; and, notwithstanding all means and appliances (a water-bed he could not bear), the skin gave way in several places—in fact, wherever pressure occurred; first, over the sacrum, largely exposing the bone; then over the left trochanter, over the ischiatic tuberosities, and subsequently over each of the more prominent spinous processes of the vertebræ, as his position in bed was, from time to time, varied. For weeks, this patient struggled between life and death; then he began to rally; the fluid about the right hip gradually disappeared; and he ultimately got well, but with ankylosis of this joint. Several years have elapsed, during which he has enjoyed most excellent health; and has been able to do good service with his regiment, both in the Crimea and in India.

A few months after the occurrence of this case, I was asked to see a young lady for a supposed affection of the left hip; and, on inquiring into the history of the case, I found that she had lately returned from Italy, where she had been suffering from what was thought to be a low fever, with suppuration about the gums. The case turned out to be one of pyæmia; a large abscess was forming in the neighbourhood of the hip-joint, and two other abscesses were forming in other parts of the body. The matter was let out of these various abscesses as soon as possible; and after a long and very painful illness, this patient got perfectly well; and, to my knowledge, has remained so for several years past.

I put a couple of threads, as setons, into a large nævus a little below the right nipple, in a child aged 17 months, who was in good health. In a few days, the threads were withdrawn, as they were giving rise to suppuration; and when all suppurative tendency had passed off, two more threads were introduced. Suppuration of the nævus again followed; the threads were removed at once; but the child became feverish, lost all appetite, and, in two or three days, the left thigh began to swell, and became very painful. At first, the swelling was general; but, subsequently, it became more marked towards the inner part of the thigh, and here a large abscess soon formed; this was opened, and upwards of half

a pint of matter was let out. Ultimately, the child got quite well; and when seen some time afterwards, it was in good health, and the nævus was rapidly diminishing.

Two threads were passed, as setons, through a large nævus of the face in a healthy child. The setons were kept in for a few days, with the effect of producing induration of the lower part of the swelling; they were then removed, as slight suppuration was observed around the little wounds. Subsequently, symptoms of irritative fever made their appearance; and shortly afterwards, the parts about the right shoulder became swollen and painful; redness of the skin followed; and a large abscess formed immediately below the clavicle, and over the left side of the chest. Half a pint of matter was let out; the abscess discharged freely for a few days; it then gradually closed; and the child recovered. When last seen, some time afterwards, it was in good health, and the nævus was diminishing.

I removed a tumour from the left groin of an apparently healthy young woman. The operation was, in the course of a few days, followed by symptoms of pyæmia; abscesses formed in various parts of the body, and especially one large one in the right leg; the matter was let out as soon as possible; but for weeks she lay in a most critical state. She gradually rallied, however; and for several years past, during which I have seen her from time to time, she has been in excellent health.

In the preceding cases, the secondary mischief was confined to the limbs, or to the surface of the trunk; but pyæmia may be recovered from, even when the internal organs are more or less seriously implicated; and of this the following cases afford ample proof.

I was sent for to see a gentleman who was living in the country, and who was supposed to be suffering from an acute affection of the ankle-joints, accompanied by chest-symptoms. He had led a somewhat irregular life, had of late been out of health, and had recently suffered from suppuration in one of the tonsils. The parts around the ankles were extensively inflamed, and matter was evidently about to form; lobular pneumonia existed in several places in the left lung; and the general symptoms were of a typhoid character. In a few days, a quantity of matter, which proved to be superficial to the joints, was let out from the lower part of both legs; the lobular pneumonia gradually subsided; and the patient ultimately recovered. I saw him some months afterwards in town; he was then in excellent health—in fact, in better health than he had been for some time; his breathing was perfect; and he was able to take long walks without fatigue.

A young lady had measles, and discharge from the left ear followed. She was up and about, when she was seized one day with a violent rigor; and then came symptoms of a low, typhoid character. I saw her four or five days after the ushering in of those symptoms. The skin was then of a dusky hue throughout; the typhoid symptoms well marked; and there had been a second rigor the day previous; the discharge from the ear had stopped from the first; there was no pain in the head, and no pain nor swelling about the ear or neighbouring parts; but there was tenderness upon pressure along the course of the left internal jugular vein; and some

slight swelling with pain over and around the left sterno-clavicular articulation. The swelling increased, and in a few days a large abscess formed; the matter was speedily let out; then came lobular pneumonia of the left lung; intense pain on the inner side of the left knee, with some puffiness of the joint itself; similar appearances followed about the corresponding ankle-joint; and, finally, an enormous abscess formed in the neighbourhood of the left hip-joint; this was deeply situated; but, as soon as practicable, the matter was let out by a free incision. From this time, the symptoms began to mend; the lung-affection subsided gradually; and so, too, did the pain and swelling about the knee and ankle-joints. After a lingering illness of many weeks, the restoration to health was perfect; and so it has remained for upwards of a year and a half.

A stout-built, healthy young man was admitted into St. George's Hospital, with a severe injury of the hand, for which I amputated the forearm shortly afterwards. Everything went on well for a few days; then came symptoms of pyæmia, with superficial abscesses; followed by cough, urgent dyspnoea, and evident mischief about the chest. For several days, the case appeared hopeless; but one day, after coughing, he suddenly brought up a quantity of matter, and from this time he began to rally, and ultimately recovered.

A man pricked his finger in making a *post mortem* examination; a small abscess followed; the matter was let out; and the wound healed in a few days. Then came an abscess in the arm-pit, which was opened; and shortly afterwards typhoid symptoms of a very severe character, which were accompanied by cough and urgent dyspnoea. For days this patient lay perfectly unconscious, and apparently dying; but one day, after coughing, he suddenly brought up a large quantity of fetid matter; from this time his symptoms began to mend, and he made a good recovery. It is upwards of three years since all this happened, and the man is now in good health, and as well up to his work as he ever was.

Such, then, is a brief outline of the cases of recovery from pyæmia which have fallen under my notice—ten in all; out of which the purulent infection was in six confined to the outer parts; and in four, it showed itself in the lungs as well as in the outer parts; in two, in the shape of lobular pneumonia, and in two, in that of large abscesses, which burst.

Pyæmia occurs for the most part in hospital practice; but it occurs also, and that more frequently, I think, than is usually supposed, in private practice; and in the country, as well as in large towns. Of cases occurring in private practice, I have known thirteen—with gonorrhœa, one; with suppuration about the gums, one; with suppuration in the tonsil, one; with suppuration in the ear, one; with suppuration about the shoulder, one; with a whitlow, one; with carbuncle, two; after typhoid fever, two; after operations, three, in two of which the operation was very trifling. In all these cases, the patients were in easy circumstances; four lived in the country; and the others in healthy and well drained parts of town.

As for pyæmia in hospital practice, that, I am happy to say, is now much less frequent in the wards of St. George's Hospital than it used to be. Indeed, for the last two or three years, our wards have been

remarkably free from this the bane of surgery. And for this improvement, there is no doubt that we are mainly indebted to our convalescent wards, the large, well-aired rooms which have lately been built at the top of the hospital. These convalescent wards I consider to be of the utmost use, not only to the patients who are thus enabled, in all weathers, to get out of their own wards; but also to the patients who may still be obliged to remain in bed. The general ward is relieved of a certain number of patients during a great part of the day, and both sets of patients thus have a purer atmosphere to breathe.

In the general treatment of purulent infection, the main features are that the strength should be kept up in every way, and the nervous irritability allayed. Rum and milk in the early morning, strong animal broth from time to time, and stimulants, wine or brandy, according to circumstances; an opiate at night, and sometimes during the day: such are the remedies which I have found answer best in purulent infection. I cannot say that I have found medicines, save opiates, to be of any use in this terrible disease. I have seen all and every kind of medicine fairly tried, and the patients have died; and I have seen even bad cases—cases in which the internal organs have been seriously implicated—get well under the treatment which I have just mentioned. The patient must be carefully nursed, and the stimulants and support given at stated intervals, and in quantities measured according to circumstances.

And locally, the abscesses should, as a general rule, be opened as soon as possible; but in dealing with joints, this rule requires some caution, for in practice you will, now and then, meet with cases in which there may be great pain, and swelling, and even redness of the skin, on the side of, or around, the joint, with marked effusion in the joint itself, and yet all these symptoms may subside; the fluid disappears, and the joint is, in the course of time, more or less completely restored. I have seen this in three or four instances about the knee, in which there remained stiffness and even contraction for a time, but in the course of a few months the joint was as supple as ever, and has remained so.

A GOOD EXAMPLE. The practice of salting the streets of New York after every snow storm, to hasten the melting of the snow, is now forbidden by law. While it was practised, the streets were not only ankle deep with water, but this water was rendered intensely cold by the mixture of salt. Great injury resulted to the hoofs which travelled on these streets, many losing their horses as a result of the constant exposure. Children attending the public schools were very liable to have their shoes saturated with this brine, and severe colds were the consequence. As a sanitary measure, this action of the Common Council is worthy of all imitation. (*American Med. Times*).

SUICIDES. In the year ending September, 1861, 103 cases of violent deaths were entered on the Scottish registers as cases of suicide; giving the proportion of 34 suicides in every million of the population. For England the last return of suicides seems to be for 1840, and in that year the ascertained suicides were in the proportion of 57 in every million of the population. In Sweden, from 1806 to 1830, the average annual number of suicides was in the proportion of 41 suicides in every million of the population. In Prussia, in 1841, the suicides seem to have been in proportion of 109 in every million of the population.

Original Communications.

REPORT ON VACCINATION AS PRACTISED AT THE LIVERPOOL STATION OF THE NATIONAL VACCINE ESTABLISHMENT.

By A. B. STEELE, Esq., Surgeon to the Blue Coat Hospital, and to the Ladies' Charity; Member of the National Vaccine Establishment; and Teacher of Vaccination appointed by the Privy Council.

[Read before the Liverpool Medical Institution.]

[Concluded from page 253.]

The station selected in Liverpool was the Vaccine Institution connected with the Ladies' Charity, originally established by the late Mr. Park about fifty years ago, and which has been kept up in a state of efficiency ever since.

Gratuitous vaccination is here afforded to the children of those women only who have received the aid of the charity, who are ineligible for relief a second time if they fail to bring their children to the institution to be vaccinated within three months after birth. About 1000 vaccinations are performed annually. A register is kept, showing the precise result and the source from which the lymph is taken in each individual case. About 400 charges of lymph on ivory points are forwarded to the National Establishment in London every week. The vaccinating days are Mondays and Fridays. The remarks which follow must be considered, for the most part, to apply to the practice adopted on Mondays, that being the day to which my observations are principally directed.

The mode of vaccinating differs somewhat from that commonly adopted, and is in accordance with the recommendation of Mr. Marson. The following is the plan of proceeding: The arm to be operated upon is firmly grasped by the left hand of the operator, so as to make the skin tense; then, the lancet being already well charged, with the right hand, the lymph is introduced by a valvular incision from above downwards; so managed that the fluid may gravitate into the wound. Five such incisions, about half an inch apart, arranged in the form of the five of diamonds, are made without re-charging the lancet, which must be very sharp, as failure, more or less complete, is sure to result when the lancet used is not in good order. No importance is attached to the amount of bleeding, which, even when considerable, does not interfere with the success of the operation.

One advantage of this method is that, when carefully and successfully performed, it gives more uniform and characteristic results than any other plan. Each puncture produces a separate perfect vesicle; the five constitute a miniature eruption of *vaccinia discreta*, more strictly typical and more clearly exhibiting the normal course of the vesicles through the several stages of development, than when the lymph is introduced by "scratching," or by several minute punctures in close proximity, so that two or more vesicles are blended together, producing a confluent form of eruption, which, to a certain extent, destroys the characteristic appearance of the vesicles.

It is not for a moment contended that the particular manner of operating just described affords a greater degree of protection than any of the numerous other methods which have, from time to time, been recommended and adopted. Much latitude may well be allowed in this respect, provided the all-important object be kept in view; namely, that in every case a sufficient number of perfect vaccine vesicles are produced, which