knee. The next day (December 31st) the left arm began to be painful, and to swell rapidly, and towards evening some swelling about upper eyelids was noticed. On January 2nd, 1897, I was called to see him for the first time, and these are my notes:

"The boy presented an extraordinary appearance. Both upper eyelids are tensely oedematous, and also the area between the eyes and over both temples. The lower eyelids are not at all affected, so that the eyes can be seen (with some difficulty) by drawing down the lower lids. The oedema is tense and does not pit. It is very tender. There appears to be no oedema in other parts of the head, but the great enlargement of the temples, etc., gives the appearance of a very large head. The left arm is very swollen and tender. There are a number of irregular raised purpuric patches about the extensor surface of the forearm. The left leg is slightly oedematous (much less, according to the friends, than it was). On the left heel is a small abrasion, said to be since commencement of the illness. There is no oedema elsewhere, and except for the purpura the oedema is pale and not inflammatory. Pulse slightly quickened, and temperature a little over 100° F. Urine examined, no albumen.

January 3rd. To-day both upper and lower eyelids excessively swollen, also temples, behind ears and the occipital regions on both sides. No oedema to be detected on top of head. Eyes absolutely closed.

On January 4th the oedema of the face had very much improved, and he could open his eyes. The swelling in the left arm was better. The purpuric spots were now brownish, raised, and the largest of the size of a threepenny piece. The oedema everywhere pitted on pressure, but was still tender. There was very slight fever, and the patient felt much better.

On January 5th the right arm had begun to swell, and purpuric spots like those on the left arm had appeared. There was a large purpuric spot around the wrist, and many smaller ones on the extensor surface of the forearm. The oedema of the face and left arm and leg had much improved.

On January 7th the face was almost normal, but oedema with great tenderness had appeared on the back. Scarcely any oedema of the left limbs remained. The temperature was 101.2°.

On the evening of January 9th he was seen in extreme pain. The right arm had suddenly become tensely swollen from the elbow downwards, and fresh purpuric spots had appeared, and also a couple of vesicles. There was also considerable abdominal pain and tenderness of the back. The oedema elsewhere had practically disappeared. The temperature was about 101°.

From this time onward there was steady improvement. Oedema gradually disappeared and fever quite ceased. The contents of the vesicles became purulent, and then they dried up.

On January 17th, however, he was suddenly seized with an acute attack of dysentery. Blood and matter was very copious, and tenesmus severe. Under treatment these symptoms rapidly disappeared, and since the 21st convalescence has been interrupted.

As regards treatment, quinine internally, and ext. belladonnæ c. glyc. externally, were used at first; later, lotio plumbi c. opio was found more soothing as an external application. The dysentery was treated in the ordinary way with pulv. ipecac. and mist. ol. ricini.

REMARKS.

The interest of the case lies in the very wandering nature of the oedema, and especially in the sudden swelling of the face and equally sudden disappearance of oedema. The fever, the purpuric spots, and possibly the dysenteric symptoms, point to a septic infection, and possibly it may have been a septic infection from the abrasion of the heel. There were, however, never any red lines visible on the limbs, nor were the lymphatic glands enlarged or painful. The following case, which I had a short time previously, may throw some light on the above. A boy, aged 18, came to me with a small but intensely painful abscess of the axilla, which I opened. Two days later the whole arm on that side became tensely swollen and painful, and the temperature went up to 103°. In two days more the boy was unable to leave his bed, on account of

a similar swelling affecting both legs. The arm and the abscess rapidly improved, but it was two weeks before the fever left him and the condition of the legs improved. They, however, remained oedematous for several weeks more. Here, however, there were distinct red lines in the course of the superficial veins, and I think the diagnosis of a septic phlebitis, due to infection from the axilla, was clear. Although some of the symptoms were different, I am inclined to think, the first-mentioned case was of the same nature, though the *rationale* of the anatomical distribution of the disease is a mystery to me.

TECHNIQUE OF THE TREATMENT OF SYPHILIS BY INTRAVENOUS INJECTION OF MERCURY.

By JAMES B. BYLES, M.B.LOND.,

Late House-Surgeon at the London Male Lock Hospital.

Having read in the BRITISH MEDICAL JOURNAL of December 12th, 1896, Mr. Ernest Lane's able paper on the Treatment of Syphilis by Intravenous Injection of Mercury, I feel it would be of interest to describe in detail the method of carrying out that treatment, together with a few points gained by experience in the wards of the Male Lock Hospital, London, by attention to which the small operation may be successfully performed. That each separate injection be successful is of primary importance, due to the fact that it has to be repeatedly performed while the only veins available are those of the upper arm and forearm, so that if a mistake is made the treatment is probably interrupted owing to the pain and swelling occasioned. The apparatus required is exceedingly simple, and may be narrowed down to a hypodermic syringe with a glass piston, two platino-iridium needles, the solution to be used and a piece of rubber tubing for a tourniquet. The patient has his arm bared to the shoulder, and a couple of turns taken round the upper part with the tourniquet, the ends of which he may be allowed to hold and let go when required. A prominent vein is now chosen for the injection, and as a general rule I should suggest that those actually at the elbow-joint should not be selected, for here, owing to the frequent movements of the part, even the small injury caused by the needle prick may give rise to some slight phlebitis, placing that arm *hors de combat* for the time. Choose rather the cephalic vein or one of the superficial veins of the forearm.

The syringe is now filled with the solution to be used, the needle affixed and sterilised in the flame of a spirit lamp. All air bubbles should be cleared from the syringe, but should any minute ones remain, they will be out of harm's way against the base of the piston, being driven there by holding the syringe at a slightly higher level than the needle whilst injecting. The best form of syringe is one with a glass rod as piston running through a washer of asbestos; it has a capacity of 20 minims, but one holding 40 minims would be better. This syringe may be sterilised for all practical purposes by boiling.

To insert the needle into the vein chosen, hold the syringe almost horizontally, and in the direction of the blood-stream. It is an important point that if the needle has failed to enter the vein, movement of the needle, especially depression, will give rise to dimpling of the skin, whereas if the needle is in the vein, not only is movement of it free, but in many cases blood will pass into the syringe and colour the solution.

The patient is now told to release the tourniquet gently. After this has been done, the least possible quantity of injection is to be thrown into the vein; if the patient feels nothing the vein has been successfully entered and the injection may be completed; if, however, the patient complains immediately of smarting pain withdraw the needle, as the vein has been missed, and the solution is passing into the subcutaneous tissue.

By careful attention to these details the painful bruising arising from a misplaced injection is rendered a matter of impossibility. In a few cases some staining may appear at the site of injection a day or two after, from a few drops of blood from the vein having escaped into the surrounding

tissue; in still fewer cases there may occur some slight periphlebitis, especially in those cases where an injection has been made actually at the bend of the elbow. This swelling will subside in a few days, and in no case do I believe any phlebitis to have been present. After withdrawing the needle, I usually close the puncture with a wisp of wool and collodion. In future injections the site should be varied as much as possible by alternating the arm used, and by the selection of different veins.

Should any periphlebitis unfortunately occur, it is advisable to give that arm a rest till the swelling has subsided or make the injection above it. The amount of injection required by different patients varies to a great extent, but can be regulated very exactly by the state of the patient's gums; in most cases 20 minims to 40 minims every other day will be found to be sufficient. As to the solution used for the injection, in all ordinary cases, with no symptoms calling for the exhibition of iodides, I have tried both the liq. hydrarg. perchlor. *B. P.* and the 1 per cent. solution of the cyanide, and have not found the one in any way superior to the other. But in tertiary cases and in syphilitic ulceration of a tuberculous form, in cases of rupia and bad throat, etc., where iodides are indicated, I certainly consider patients have improved more rapidly on solutions of sodium iodide 3j in liq. hydrarg. perchlor. 3js, the dose for an injection being 20 to 40 minims.

In some rare cases, where even small injections of mercury such as 20 minims every other day, have tended to cause salivation and in which the disease was proceeding unchecked, I have found great advantage in following up the mercury injection by one of a dilute solution of sulphate of atropine, such as 20 minims of a solution containing 3j of the liq. atropinæ sulph. *B. P.* in 3vij of distilled water. Here the easiest way to proceed is, after giving the mercurial injection, to detach the syringe from the needle *in situ* in the vein, fill with the atropine solution, reattach and inject, the patient meanwhile holding his arm with the needle in it above his head in order to prevent bleeding.

With regard to the advantages of intravenous injection over other forms of treatment for bad cases of syphilis, and also cases where mercury cannot be taken by the mouth, it is only necessary to show that it is as good in its results as inunction, and that that is the case Mr. Ernest Lane laid particular stress on in his paper of December 12th, 1896. For it is acknowledged that a month or six weeks' course of inunction forms the best foundation for the patient's two years' course of mercurial treatment, enabling him afterwards to go on with the drug in the usual way per the stomach without disturbance to that organ and the rest of the alimentary tract, even though before his treatment by pills or mixture had had to be discontinued. The technical advantages of intravenous injection over inunction are very great and practically incomparable. The patient can be got under the influence of the drug very rapidly and with certainty; once under he can be kept so with the greatest nicety, as it is possible to regulate the dose to a few minims. In inunction it sometimes occurs that the amount absorbed is at one time exceedingly small, and at another so large that the patient is almost salivated.

Some cases where inunction is especially called for are covered to such an extent by cutaneous ulceration that it is impossible to carry out, whereas no such objection may apply to the intravenous injection. In the one case, also, the surgeon knows the treatment is being carried out regularly and correctly, whilst no such guarantee exists in the other. From the patient's point of view also the advantage of the injection every other day, occupying only a few minutes, is very great when compared with the treatment by inunction, with all its attendant discomforts of publicity, due to the necessity for a hot bath every night, time occupied, and a collection of underclothing soiled with blue ointment. All these disadvantages practically prevent a patient from carrying out his treatment by inunction, and it is for these reasons that I consider intravenous injection to be particularly suitable for those cases of syphilis in private who require something more than the ordinary treatment by the mouth.

PROFESSOR VON KÖLLIKER, the venerable histologist of Würzburg, has had the title of "Excellency" conferred upon him.

MEMORANDA: MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

HERPES OF MUCOUS MEMBRANE AND SKIN.

THROUGH the kindness of Dr. Washington Isaac, with whom I saw the patient in consultation, I am enabled to send the following notes of this very interesting case:

I. L., aged 41, first seen on December 27th, 1896. He complained of sore throat, particularly on the right side, and dysphagia. On inspection the right tonsil and pillars of the fauces appeared red and swollen.

On December 29th I saw the patient with Dr. Isaac. He then complained of pain in the throat, extending up to the right ear. The right side of the throat was found to be red and swollen, and two or three yellow spots were seen on the tonsil and posterior pillar of the fauces. Temperature 100.4°.

On December 31st I again saw the patient with Dr. Isaac. He was hoarse and complained of acute pain in the throat extending up to the ear, and entirely preventing sleep. There was now a typical herpetic eruption on the soft and hard palate on the right side, extending forwards to within an inch of the teeth, and sharply limited on the inner side by the median raphe of the palate. Nothing abnormal to be seen in the larynx. Temperature 100.4.

The next day the earache was worse. A band of herpetic vesicles appeared on the right edge of the tongue, extending from the pillars of the fauces to within an inch and a-half of the tip of the tongue.

On January 2nd the patient was still in much pain. Three or four vesicles appeared in the concha and below helix of right ear.

On January 3rd the throat slightly easier, the ear about the same. A few vesicles appeared on the right temporal and parietal regions.

On January 4th there was general improvement, which was maintained on January 6th, but the patient was still unable to take solid food.

On January 8th he had an attack of hiccough and vomiting, and suffered from complete anorexia.

On January 9th the hiccough was very troublesome, and there were only short intervals of relief. On January 10th the hiccough was very severe, and threatened to suffocate the patient; the spasms came on very rapidly, only about four or five seconds between them. One attack lasted three and a-half hours. On January 11th hiccough ceased, and frequent retching supervened.

By January 14th the retching and vomiting had gradually subsided, and on January 15th solid food was taken. On January 26th he was extremely prostrate. The throat remained painful, and there were occasional stabs of pain through the right ear.

As regards treatment morphine subcutaneously was the only remedy that relieved the pain. This case is interesting on account of the implication of the mucous membrane as well as the skin; the great severity of the pain, and especially the pain in the ear; the presence of hiccough and vomiting, and the great prostration which followed the attack. I would suggest that the hiccough and vomiting were due to an irritative lesion of the phrenic and vagus nerves similar to the lesion met with in the spinal ganglia and nerves in cases of herpes zoster.

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TREATMENT OF BRONCHITIS AND BRONCHOPNEUMONIA IN CHILDREN.

FOR the last few years I have disregarded all entreaties and have absolutely refused to allow poultices to be used in any cases of bronchitis and broncho-pneumonia in children that I have been called upon to attend. I hold that poulticing the chest in these diseases is unscientific and prejudicial to the welfare of the patient. The difference in the temperature of the poultice when applied and when removed is such that one might as well be continually moving the child from a warm room out into the cold every few hours. The weight of the poultice must also be taken into consideration. A large