growth, and that every phase of growth has its forms of disease. (Notes, No. iv, p. 169.) And if in natural or original growth we find monstrosities and defects—arrests of development and excesses—exuberance and deficiency; so, *a fortiori*, analogous deviations may be expected in preternatural inflammatory growth. "If injured textures are repaired and wounds heal, *inflammation is healthy*; if granulations persist and will not heal, *inflammation is unhealthy*; and if normal textures continue to yield, giving way to inflammatory growths, *scrofulous disease is established*."*

The general conclusion which arises from the establishment of the foregoing propositions, may be expressed as follows.

Vascular tissue, upon injury or irritation, recedes from its established or completed form to some anterior type of growth. Blood vessels yield in structure; upon which follow effusion of lymph, and the formation of new vessels sustaining new growth. To this phenomenon the term inflammation is applied. The products or results are extremely various: repair of injury, elimination of morbid matter from the blood, pustules, abscess, ulceration, and scrofulous diseases.

"As to what may be the *essence* of small pox, I am, for my own part, free to confess that I am wholly ignorant. Nevertheless, when I carefully weigh the evidence of the symptoms, it suggests to me the idea of inflammation. In clearing herself of this, nature is at work during the first two or three days, striving at the digestion and concoction of the inflamed particles, with the intention of afterwards discharging them upon the surface of the body, for the sake of maturation, and finally of expelling them from her boundaries under the form of little abscesses.

"We must, then, if we wish to make our *methodus medendi* the superstructure to a foundation in principles, recognise two periods in this disease: first, the period of separation; secondly, the period of expulsion.

"The first of these two periods is generally passed in a febrile ebullition, which usually is completed within the first three or four days. *During this stage nature is employed upon picking out and gathering together those enflamed elements which fret the blood, in making them over to the fleshy parts of the body, and in depositing them therein.* This being accomplished, she returns to her former repose, having allayed the tumult which was excited during her operations in the blood.

"When the ebullition has thus brought about the separation, the process of expulsion begins, and this continues during the remainder of the disease, by means of the little abscesses in the solid parts. These, inasmuch as they agree with a true abscess in character, pass through all the stages, viz., those of crudity, maturation, and exarscence. If all this is done properly matters are safe; upon its being done properly, however, all chance of cure depends; everything goes wrong when this is faulty."†

In local injury, the person at the time is usually in health. The blood is healthy; inflammation sets in with good materials. Phenomena take the normal course; and the cause of irritation ceasing cure follows. But when the blood itself is suffering injury or disorder, inflammation commences with degraded or imperfect elements; and, therefore, the action is the more likely to exhibit irregularity in its course. When a bone has been broken, the case comprises: first, the fractured bone, with loss of use of the limb; and, secondly, the history of inflammation,—its course and transformations for cure. Analogously in epidemical disease, the illness comprises: first, the injured or contaminated blood; and, secondly, the history of some form of inflammation, eruption, pustules, abscess, or crisis, established for the discharge of the tainted particles. When a fracture occurs, we know what occasioned the in-

jury, and we can see or determine the amount of mischief,—*simple, contused, comminuted, compound*, etc.; and thus we are prepared for an easy or protracted, difficult or dangerous, process of cure. On the other hand, in epidemical diseases, we know but little, perhaps nothing, of the miasm, or of the amount of injury it has inflicted on the blood; and, therefore, there is here a very insecure ground upon which to base an anticipation of the coming lightness or gravity of the process of elimination or cure.

We have said that pus is a species of growth, and it remains in conclusion to show how this appears. Small colourless particles or cells are universally the primary elements of growth; they constitute the early forms of all animal textures and blood-vessels. Similar small colourless particles circulate at all times in the blood, and the more abundantly the earlier the period, or the greater the energy of growth. Such particles or cells accumulate in parts experiencing inflammation. They appear in the coats of the inflamed vessels, and loosen their texture, they exist in lymph, and are the prevailing elements of new growth; they also form the walls of the new vessels; and, lastly, they are extremely abundant in pus. These considerations, together with the determined manner in which pus arises and accumulates in spite of many obstacles of a physical kind, and the remarkable way in which established blood vessels recede before it, prove that *growth* is the appropriate idea to be attached to the formation of pus. A retrogression of vascular tissue or inflammation precedes alike repair, new growth, abscess, pustules, and ulceration. It is in products or results that differences arise. In growth and repair, the new matter which follows upon the retrogression enters into new forms, new blood vessels appear, and granulation structure arises. In abscess, pustules, and ulceration, it does not enter upon new forms, remaining fluid: so that when the wall of the abscess gives way it flows out as pus. In abscess and pustules, the purulent accumulation forms the prominent character; it occasions the swelling, whilst the receding changes in the surrounding vascular tissue are not so readily perceived; but in an open ulcer these constitute the prominent character, because the pus is continually discharged.*

Finally, arsenic and mercury are virulent and destructive poisons; yet no one doubts that both may be so adjusted, in quantity and appropriateness of application, as to become most valuable medicines. So, analogously of inflammation, no one doubts its destructiveness in respect of the vessels and textures in which it appears; yet still, adjusted by the hand of nature, in quantity and appropriateness, it opens the way to repair of injury to the textures of the body, and to the elimination of morbid matter circulating with the blood.

Maldstone, March 1854.

LECTURES DELIVERED AT THE LOCK HOSPITAL, LONDON.

By HENRY LEE, Esq., F.R.C.S., Surgeon to the Hospital.
No. V.

ON SYPHILISATION AS APPLIED TO MAN.

In my former lectures, I mentioned that artificial inoculation gave rise, under different circumstances, to different classes of local affections. In the first of these, the symptoms were those of the adhesive inflammation. I mentioned that, in this class, the secretion from the inoculation consisted, during the first days, of a thin fluid, which gradually became more turbid; and that the parts in the immediate neighbourhood subsequently became indurated in a very peculiar and characteristic manner. In the second,

* "Healthy and Diseased Structure", pp. 29, 30, and 70.
† "Concoction" of the matter of fever simply means the separation of the sound from the unsound. (Sydenham.)
‡ Sydenham.

* Vide the paper before referred to ("Medical Gazette", July 1850); also, "Healthy and Diseased Structure", p. 30, etc.

the inoculated part at once ulcerated,* and, in general, produced a suppurating bubo. In the third, the inflammation terminated directly in suppuration of the part to which the poison was applied. Artificial inoculation on animals, we had reason to believe, did not produce the second of these kinds of local affections; but they did produce the first and the third. In man, artificial inoculation has comparatively rarely been known to produce the first, but seldom the second, and very frequently the third. The reason of this I presume to be, that the inoculations have in man almost always been performed upon those whose systems were already under the influence of the syphilitic poison, and that this circumstance has tended to modify the results of the experiments which have been performed.

The experiments on animals, originating with M. Auzias Turenne, excited little general attention until a memoir was read before the Royal Academy of Medicine and Surgery at Turin, by Dr. Sperino, on the 23rd of May, 1851. In this communication, Dr. Sperino announced that a vaccination had been discovered for syphilis as for small-pox, and intimated his belief that a prosecution of this subject would bring to light the true method both of preventing and curing the disease.

Dr. Sperino mentions that he had long observed that the women committed to his care, who were the subjects of large primitive syphilitic ulcers, or who were affected with phagedenic or gangrenous sores, rarely became affected with constitutional syphilis; and that the patients who returned to the *Syphilicome* several times with primary affections were comparatively seldom attacked by any secondary disease: but that the patients who came from the country, and who had for the first time a chancre, were generally thus affected at the end of three or four months. Again, he observed, that patients who presented themselves with open virulent buboes, and in whom several inoculations were made, not only soon recovered from their local disease, but did not subsequently suffer from constitutional affections.

From these and other observations, he was led to believe that secondary symptoms do not manifest themselves in direct relation to the extent and number of the primary ulcers, but, on the contrary, that constitutional syphilis presents itself in inverse proportion to the number of these ulcerations.

On the 18th of November, 1850, M. Auzias Turenne announced to the Academy of Sciences at Paris that, after having inoculated the primitive ulcer several times on animals, and especially on monkeys, he had constantly observed that the first ulcer showed itself more quickly than the following. He found also that it became larger, secreted more pus, was accompanied by more active inflammation, and lasted longer than the second. He concluded that the third inoculated ulcer bore the same relation to the second as the second did to the first, and so on until the animal became proof against any further inoculation. The animal was then said by M. Auzias to be "syphilised". This announcement appeared to Dr. Sperino to shed a great light upon the subject, and especially to illustrate the observations which he had previously made. He was especially struck with the analogy which appeared to him to exist between the experiments of M. Auzias and that which he had observed with regard to those patients who had contracted several sores in succession, and at short intervals of time.

But the supposed facts appeared still of little value, so long as the experiments upon which they were founded were confined to animals. Dr. Sperino therefore set about applying the "marvellous facts", as he calls them, brought to light by M. Auzias's experiments upon animals, in good earnest, to the treatment of human beings. During five months, he subjected, in presence of several of his col-

leagues, fifty-two patients affected with syphilis to this mode of treatment.

The inoculation in these cases was always made with a lancet, three or four separate punctures being made each time, generally upon the abdomen. The inoculation was repeated once or twice a week, and the punctures were always covered, so as to retain the inoculated matter in contact with the part. The pus was always taken from a chancre during its period of progress. On the third, and rarely on the fourth day of the inoculation, the syphilitic pustules showed themselves, and immediately afterwards appeared the primitive chancre, with all its characteristics. In all the cases, without exception, Dr. Sperino found that the first artificial ulcers became larger than the second; they secreted a larger quantity of pus, lasted longer, and left after them larger cicatrices than those which followed.

The second ulcerations were smaller, less inflamed, less painful, more superficial, than the first; the third than the second; and so on until, after a certain number of inoculations, in general from eight to ten (three chancres being produced each time), it was only possible to produce a little pustule, which disappeared spontaneously in five or six days. After that, other inoculations remained without any result, although the pus was taken from fresh persons affected with recent sores. This same pus, inoculated upon other patients, never failed to produce its characteristic ulceration.

In patients who had already large and old ulcerations (and who, Dr. Sperino believes, were already in a measure saturated with syphilitic virus), the first artificial ulcerations were small, and it was not possible to reproduce them after a few inoculations.

Arrived at this point, Dr. Sperino believed his patients syphilised, that is, incapable of further syphilitic contagion, as M. Auzias believed the animals to be upon which he had made his experiments.

"It is certain", says Dr. Sperino, "that of all the women who entered five months ago into the *Syphilicome*, and whom I syphilised to the highest degree, not only have none hitherto been affected with constitutional symptoms, but the health of each of them has gradually improved since the active stage of the first artificial ulceration, to the end of the experiments to which they were subjected."

It is true that this account differs somewhat from that which Dr. Sperino subsequently gives in his book published at a later period. In this work, it is said that, out of fifty-two patients affected with primary syphilis, the plan of treatment by repeated inoculation was successful in fifty, and unsuccessful in two; out of forty-three patients affected with constitutional syphilis, twenty-six were treated by syphilisation, and twenty-five were cured. In six instances, the iodide of potassium was used in conjunction with syphilisation; and in eight cases, syphilisation, iodide of potassium, and mercury, were all employed. In three cases, it was found necessary to discontinue the inoculations, and two patients died.

This rate of mortality appears very high; for in this country, where the disease presents itself under perhaps severer forms than in any other, we very seldom have to register a death from syphilis alone.

Of fifty-three patients treated for primary syphilis, only three are reported to have presented themselves, at the time the book was written, with secondary affections; but it has since been said that others subsequently made their appearance, and were again admitted into the hospital for secondary symptoms.

The patients who presented themselves for secondary disease were again treated (cured, it is said) by fresh syphilitic inoculation.

The facts given by Dr. Sperino bear upon the face of them the evidence of having been collected by a very enthusiastic observer; but, even supposing them to be all true, yet the length of time occupied in the treatment does not appear very encouraging.

Excluding the cases treated with mercury, and the cases in which the treatment was interrupted, Dr. Sperino gives

* In the second class of cases, when a part is said to ulcerate, it is not meant that there is simply a loss of substance. This is common to all sores, and may be produced in suppuration, by parts becoming dissolved or destroyed, and by other means. The term, as above used, is restricted to "ulcerative inflammation" of parts, in which, as the result of active inflammation, the surface of the sore becomes sagged and irregularly eaten away.

as seventy-six cases in which the supposed immunity against the effects of syphilis produced by repeated inoculations might be observed. Of these, the effect is said to have been produced in less than a month in one case; in from one to three months in four cases; in from three to six months in seven; in from six to eight months in eight; in from nine to twelve months in eight; in from twelve to fifteen months in twenty-one; and in from fifteen to seventeen months in twenty-seven. Thus we see that there is a gradually increasing number of cases requiring a corresponding increased length of time for their so called syphilisation; and is it difficult to imagine why, if so large a number as twenty-seven remained unsyphilitised after fifteen months, none should remain in the same condition after seventeen months, and why that there should have been no recurrence of the disease after this period.

The mode of treatment pursued by Dr. Sperino, and its effects, may be illustrated by the following cases.

CASE I. A. C., sixteen years of age, of good constitution, was admitted into the hospital on the 9th of May, 1851. She then had an indurated syphilitic ulcer on the internal and lower part of the right labium, and two other non-indurated sores at the orifice of the vagina. She was now affected for the second time, and had been ill a fortnight. Four months previously she had taken a hundred and twenty pills for a primary syphilitic affection, said to consist of an indurated sore.

On the 12th of May, after having administered purgatives and ordered a bath, Dr. Sperino inoculated three points on the right hypochondriac region with the matter taken from a primitive indurated sore. There arose on these points three little vesicles, which, on the third day, were converted into pustules, surrounded by an inflammatory blush.

May 15th. Three inoculations were made with the same pus, and three pustules were produced.

May 22nd. Three fresh inoculations were made with pus taken from a fresh patient.

May 26th. Only one of the last three inoculations had produced a pustule.

May 29th. The inoculations were again repeated, and produced three pustules. The ulcers produced by the inoculations first made were larger than those resulting from the second operation, and these were again larger than those subsequently formed.

June 3rd. Three fresh inoculations were made with a positive result. The primary ulcer for which the patient was being treated had healed, but the induration remained.

June 7th. From this day to the 1st of July sixteen punctures were made, at seven different times, with pus derived from sores of other patients in a state of progress. Only four abortive pustules showed themselves as the results of these sixteen inoculations. The ulcers arising from the inoculation of the 22nd, 26th, and 29th of May, and the 3rd of June, did not become large, and were healed towards the end of June, at the same time as the sores produced by the first inoculations on the 12th of May. The induration, which had existed after the cicatrisation of the ulcer on the right labium, gradually disappeared; at the beginning of July there was no longer any trace of it.

July 2nd. Two inoculations were performed, and were followed by two pustules.

July 3rd. Three similar inoculations were followed by the same positive result.

From the 9th to the 21st of July, eighteen punctures were made, at five different sittings, all of which were followed by little pustules having a characteristic appearance. These, however, healed in a short time (from eight to ten days), and left scarcely a trace of their existence.

July 26th. Three inoculations were made with the pus derived from the inoculations of the 3rd of July. Three pustules resulted, smaller than the preceding.

July 27th. Eight inoculations were made; and four more on the 30th.

August 4th. Twelve small pustules appeared. The sores resulting from the inoculations of the 2nd and 3rd of July were already dry and cicatrised.

From the 4th to the 22nd of August twenty inoculations were made with well chosen pus. Six little pustules resulted, which were healed in five or six days.

This patient was kept in the hospital until the 13th of September, when she was allowed to depart, after having remained in the hospital for four months and four days, and been inoculated eighty-nine times.

No constitutional symptoms, it is said, showed themselves in this case, and the patient left in perfect health. Six cicatrices on the hypochondriac regions were the most visible; the others, although numerous enough, were small: they all were gradually becoming fainter. This patient was considered almost syphilitised.

CASE II. A. B., aged 16, was admitted into the *Syphilicome* on the 1st of August, 1851, affected with a primary syphilitic ulceration on the anterior lip of the neck of the womb. There had been no previous disease.

August 3rd. The pus from the ulcer on the neck of the womb was inoculated in two places on the right hypochondriac region.

August 4th. The points where the pus was inserted were slightly red.

August 5th. A little vesicle had appeared upon each.

August 6th. The syphilitic pustule had appeared at the two points; there was some fever.

August 7th. The fever had increased; the pustules broke, and exposed primary syphilitic ulcerations; the base of these began to feel slightly indurated.

August 8th. The pus from the last named pustules was inoculated on the corresponding point on the left side in two places.

August 11th. Two pustules had appeared in the situation of the last inoculations. The two first artificial ulcerations continued to increase: they were indurated, and presented all the characteristics of the Hunterian chancre.

August 13th. The pustules arising from the inoculations made on the 8th had been open for the last two days; the sores left were smaller, less inflamed, less hard, and less painful than the first.

August 15th. Seven inoculations were made, with the pus from the first artificial sores, under the right breast.

August 18th. Seven little pustules had resulted from the last inoculations.

August 21st. The ulcers from the inoculations made on the 15th were smaller and less painful than those made on the 8th. Eight fresh inoculations were performed with the pus derived from the second series of artificial sores.

August 24th. Eight pustules had resulted from the last-named inoculations; but these ulcers were small, and surrounded by a faint inflammatory areola. The first and the second series of inoculations were beginning to heal; the other were small, and remained stationary. Six fresh inoculations were made with some virulent pus taken from another patient.

August 31st. Three out of the four sores produced by the first inoculations were cicatrising; the fourth was also healing. Those resulting from the inoculations performed on the 24th were beginning to dry up. Twenty punctures were now made with a lancet charged with virulent matter from a fresh patient.

Sept. 2nd. Twenty little pustules, but slightly inflamed, had resulted from the last inoculations; nineteen similar punctures were made on the left side of the chest.

Sept. 18th. The ulcers resulting from the inoculations performed on the 31st of August, and on the 2nd of September, had gradually diminished in extent, and had cicatrised. Fifteen inoculations on the right side of the chest were performed, and on the 20th six more.

Sept. 22nd. The inoculations of the 18th and 22nd had given rise to small abortive pustules. Five fresh punctures were made.

Oct. 2nd. The pustules from the inoculations practised on Sept. 18th and 20th had not burst, but had dried up; the inoculations of Sept. 22nd had remained without result.

Oct. 13th. There were no longer any traces of pustules. The induration of the first artificial ulcers had entirely

disappeared. During this plan of treatment no internal medicine was given, with the exception of some refrigerating drinks when the skin was hot, or the pulse frequent.

During the period of the first inoculations some slight fever was present. In other respects this patient enjoyed excellent health. The cicatrices had almost entirely lost their coppery hue when she left the hospital on the 13th of October.

It is inferred in this case, that the fever observed on the 6th and 7th of August may have been the syphilitic fever, or that fever which precedes the syphilitic eruption; and therefore that such an eruption might have been expected had not the syphilitic inoculations been made.

CASE III. C. B., aged 16, was admitted into the hospital on the 20th of March, 1851, with two large primary ulcers, open for ten or fifteen days, and for two buboes, in which evident fluctuation could be detected. This patient was discharged for the third time, but had only once been treated with mercury: she then used forty frictions, and took fifty-six pills of proto-iodide of mercury.

March 31st. Two inoculations were made on the abdomen, and two pustules were produced; on the 7th, the 10th, the 14th, and the 17th of April two inoculations were performed, followed each time by ulcers smaller than the preceding. All the ulcers remained superficial and small.

April 28th. The ulcers resulting from the above inoculations were almost all cicatrised. Three fresh inoculations were made on the abdomen, and three more on the following day. These were all followed by little pustules.

May 8th. Three inoculations on the abdomen were not followed with any result. The two buboes had become indolent, smaller, and fluctuation could no longer be felt in them.

On the 15th, 19th, 22nd, and 29th of May, and on the 4th of June, divers inoculations were performed which gave rise to little pustules. The primary ulcers for which she was admitted had recently become cicatrised, and the artificial ulcers were healed.

From the 7th of June to the 19th of July, thirty-five inoculations were performed at short intervals. From these, sometimes no result at all was produced; sometimes nothing but little pustules produced by the puncture, and which healed in four or five days without leaving behind them any marks of their existence. But on the 19th of July an inoculation gave rise to a little pustule, the scab of which being raised on the 24th, left a small ulcer having the characters of a syphilitic sore; on the 30th of the same month this sore was entirely healed.

From the 19th to the 31st of July, twenty fresh inoculations were made without any positive result.

On the 17th of August, this patient left the Hospital, having resided there four months and twenty days, and having enjoyed uninterrupted good health during the whole of that time.

It is to be observed, regarding this case, that no information is given with regard to the sources whence the inoculated pus was derived, and that, if left to itself, it is not a case in which secondary symptoms might have been expected. But the inference deduced from it is, that syphilisation among other wonderful properties has that of producing absorption of matter from a suppurating bubo.

The advocates of this plan of treatment insist that repeated and successive syphilitic inoculations carried to saturation induce not only an immunity against the infection of this same virus, but that they serve to cure the different syphilitic symptoms primary as well as secondary.

This point, it might be said, is illustrated in the following case, reported by M. Zelaschi.

CASE IV. Charles T., aged 29, contracted a syphilitic ulcer in November 1850, which left an induration in May 1851. At this time, he again contracted a primary syphilitic sore on the mucous membrane of the upper part of the prepuce.

June 22nd. The treatment by syphilisation was commenced with two punctures on the right thigh with a lancet

charged with the discharge from the primary sore upon the prepuce.

June 25th. Two little pustules had made their appearance. Two fresh inoculations were performed, and two days afterwards were succeeded by two pustules.

June 27th. The patient complained of pain in the left groin, where an enlargement was discovered of the size of a pigeon's egg. Three fresh inoculations were made on the left thigh, and gave rise to three pustules.

July 1st. Three inoculations with the pus derived from the artificial sores gave rise on the third day to the same number of pustules.

The ulcers produced by the two first inoculations were very painful. The primary ulcer on the prepuce continued to increase.

July 5th. Two inoculations were made on the right thigh; three on the left.

July 8th. Four more inoculations were made on the left near the last mentioned. All these were followed from the second to the third day with characteristic pustules. The matter from a blennorrhagia, with which the patient was also affected, was now inoculated, but produced no effect.

July 10th. The ulcers from the first inoculations were very painful, and secreted a great deal of virulent pus. The ulcers produced by the subsequent inoculations were of smaller extent than those produced by the first.

The bubo was stationary and indolent. The primary ulcer on the prepuce had continued to increase. It was of a brick red colour, much inflamed, and had destroyed a considerable portion of the prepuce. The inoculations were now interrupted.

July 21st. Some symptoms of fever had existed since the last report, for which the patient was bled.

July 29th. The primary ulcer on the prepuce, and the sores resulting from the inoculations, were less inflamed. The ulcerations produced by the first inoculations appeared to be still poisonous; all the rest were healing. The sores produced by the fifth, sixth, and seventh series of inoculations were almost cicatrised. The swelling in the groin had well nigh disappeared.

August 4th. The ulcers produced by the last three series of inoculations were healed, and the others under healing on the 14th of August. Thirty-five days after the inoculations were discontinued, some constitutional symptoms appeared—on the back and thighs and other portions of the body slightly raised patches of a coppery colour were visible—and on the 18th and 19th the patient was affected with periosteal pain of the tibia. The primary ulcer had now destroyed the upper half of the prepuce, and eaten away part of the corona glandis. The cutaneous spots were becoming confluent.

In this rather uninviting state of things, M. Zelaschi bethought himself of again having recourse to syphilisation, but before doing so sought the advice of Dr. Sperino with reference to the case. It was then agreed that syphilisation should again be had recourse to, and that it should be vigorously prosecuted.

Accordingly, on the 20th of August, twenty punctures were made with pus derived from other syphilitic patients, and twenty pustules were produced.

August 23rd. Fourteen punctures were made with a lancet charged with pus taken from the sore on the patient's prepuce, and twelve pustules resulted.

August 30th. The general state of the patient was described as very satisfactory. The primary ulcer on the prepuce was no longer extending itself. The ulcers arising from the inoculations of the 20th, were inflamed and painful. Fifteen fresh punctures gave rise to eleven pustules.

August 31st. The pain of the tibia was now scarcely perceived by the patient. The eruptions had not progressed. The ulcers from the inoculations performed on the 20th, were healing.

Twenty inoculations were now made with the pus taken from the sores resulting from the punctures of the 23rd. Eighteen little pustules resulted.

Sept. 6th. The ulcers produced by the inoculations of the 20th and 23rd of August were dried up.

Five fresh inoculations with pus derived from fresh patients gave rise to five pustules.

Sept. 12th. Nine inoculations with the pus derived from the sores produced on the 6th. These gave rise to little pustules. With the same matter on the 15th, six inoculations afforded no result.

Sept. 20th. Twenty inoculations with pus derived from fresh sources. Seventeen pustules resulted, which had dried up on the 29th without having burst, with the exception of two, which still remained moist.

From the 25th of Sept. to the 1st of Oct., fifteen inoculations were made; no result showed itself from these.

Oct. 8th. Eight inoculations: three little pustules resulted, of the size of the head of a pin, which dried up in less than three days, without having been broken.

Oct. 9th. Nearly all the syphilitic spots had disappeared, an abundant desquamation covered the whole body, and especially the regions where the spots had been the most confluent.

Oct. 11th. Six punctures were made; and on the 19th ten more. These presented no results. The matter for the inoculations of the 25th of Sept. and the 19th of Oct. was taken from indurated sores in a state of progress in other patients. This virus was proved to be eminently active when tried in other cases.

All the syphilitic symptoms, both primary and secondary, had now disappeared, and the patient resumed his ordinary occupation.

CASE OF PUERPERAL CONVULSIONS.

By R. JONES, Esq.

ANASARCA of the lower extremities in pregnant women, I believe, is more frequently occasioned by congestion of the kidneys from the pressure of the gravid uterus, than from mere obstruction from pressure of the venous trunks; and when convulsions arise during this condition, they are generally owing to the presence of urea in the blood, and are much more fatal than convulsions which occur after the commencement of labour, in cases where no anasarca exists; for, in the latter, we have simply congestion of the brain to contend with, and it very often gives way to bleeding, free purging, and delivery; but, in the former class of cases, in addition to congestion, we have poisoned blood in action as the exciting cause.

CASE. March 16th, 1854. I was requested to visit Mrs. G., a respectable farmer's wife in the neighbourhood of Clun. She was a very fine looking woman, and very stout and plethoric. Her general health had always been good. She informed me that she had just completed the eighth month of utero-gestation—her fifth pregnancy; and had sent for me on account of her legs swelling, and a difficulty she experienced in making water. The lower extremities were a good deal distended, hot, and tender; and the eyes were nearly closed in a morning before rising. She had drowsiness and dimness of sight a few days back, but was then more wakeful than natural; and she described a feeling at the occiput, "as if the head was opening". Yesterday, she had said, "she thought she was going to have a fit". There was pain and a sense of stiffness in the region of the kidneys, and the breathing was somewhat oppressed. She was thirsty; the skin was dry; the urine had been scanty for some weeks, and, for the last few days, nearly suppressed, and very dark in colour. The pulse was tight, full, and slow, below 70.

Here was a train of symptoms suggestive of serious congestion of the whole system, and of the brain more particularly. I informed the husband of the serious nature of the case, and stated my conviction that, unless the system was soon relieved, she would have convulsions. I advised bleeding and free purging. In order to prevent too sudden a shock, I had my patient put to bed, when I took away sufficient blood to relieve the tension of the heart's action,

but short of syncope. About eighteen ounces of blood was drawn, six grains of calomel was put upon the tongue, and an active aperient given shortly afterwards, to be repeated till the bowels were freely acted upon; and a mixture containing potassæ bitartras, and small doses of antimonii tartras, every four hours afterwards. She was kept in bed, with the head raised and kept cool, and had gruel, etc., for diet. I intended to cup from the loins on my next visit. I left her about one o'clock P.M..

About three o'clock the same evening, she was sick, and vomited, and shortly afterwards complained of her head. In half an hour, she had a convulsion, which recurred every ten minutes with increasing severity. The bowels had acted freely once. Five hours had elapsed since the first fit before I could see my patient a second time. She was then profoundly insensible, with strabismus of both eyes, and the face greatly congested. The pulse was full, and more frequent; she had another horrible fit, with frightful distortion of the face. I bled her very largely again, removed the hair, and applied cold constantly to the head, got the legs fomented, and put three drops of croton oil, with ten grains of calomel, upon the tongue; but the breathing gradually became more noisy, the countenance more and more livid, and she died in a convulsion about twelve o'clock the same night, rather less than twelve hours after my first visit. I had no opportunity of testing the specific gravity of the urine, or ascertaining the presence of albumen.

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JAMES COPLAND, M.D., F.R.S., President, in the Chair.

THE KELOID OF ALIBERT, AND ON TRUE KELOID.

BY THOMAS ADDISON, M.D., F.R.S.

The keloid originally described by Alibert was altogether different in its mode of development, character, and progress, from another disease occurring in the same tissue, and to which with much greater aptitude the term keloid might be applied, if regard be had to the resemblance to the effects created by a burn, which the author thought the correct interpretation of a word, deriving it from *κηλός*, *quasi ustione facta macula*. The keloid of Alibert was more like a fibrous tumour developed in the subcutaneous areolar tissue; the other form of the disease originated in the same tissue, but was of a character, and led to consequences widely different.

The keloid of Alibert first appeared in the form of very small, hard, shining, tubercular-looking, roundish or oval elevations, of a dusky deep-red colour, and attended with itching and pricking sensations. These tumours slowly increased, and comprised an area varying from that of a horsebean to that of a small almond. The tumour was often so hard and elastic as to convey the notion of fibro-cartilage. After an uncertain period, the outline of the tumour became broader and more irregular, and by a magnifying glass, delicate, whitish, tendinous-looking lines might be perceived stretching across the surface, mingled with minute bluish or purple bloodvessels. The extension of each individual tumour seemed to be effected by certain tapering claw-like processes proceeding from its edges and angles. The development and growth of these tumours might proceed for months, or even years, and at last attain the size of an inch or two inches. As the growth of the tumour increased, the sensations of pricking and itching become aggravated to a sense of constriction, or even severe stabbing. The morbid product which essentially constituted the keloid of Alibert took place in the subcutaneous areolar tissue, between the cutis and adipose membrane. Females from the age of eighteen to thirty-five were most frequently the subjects of the disease. The situation of these tumours was usually near the sternum, or between or upon the mammae. It was found sometimes in the male. Alibert considered the disease in some way allied to cancer.

True keloid was a much more serious form of disease than the keloid of Alibert. Like the above-described disease, it had its seat in the subcutaneous cellular tissue, and was first indi-