ON A FORM
OF
SECONDARY SYPHILITIC INOCULATION.

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DURING the last session I had the honour of communicating to this Society an account of two distinct kinds of primary syphilitic inoculation. One of these forms was found to present the character of the adhesive, the other of the suppurative, inflammation. The former was shown not to be readily again inoculable on the patient who had the disease, while the latter was seen to be capable of being reproduced, either in the same or in any other individual, an indefinite number of times. The first was regarded as a disease which, in its natural course, infected the patient's system; the second as a local disease, requiring only local treatment.

It was also shown, in the communication referred to, that the specific adhesive inflammation, which did not ordinarily yield a discharge capable of being again inoculated upon the patient, might, under conditions of artificial irritation, furnish an inoculable secretion. The inoculations thus produced were, however, proved to be quite distinct from those which resulted from the inoculation of the discharge from naturally suppurating sores.

Secondary syphilitic inoculation has lately been regarded

by a large number of writers as impossible, and experiments on a very large scale have been adduced in support of this opinion. But these experiments were made, for the most part, upon patients whose systems were already affected by the disease; and under these circumstances, as pointed out by myself in the year 1856, and as subsequently verified by others, the indurated chancre itself can seldom be inoculated again. It is not, therefore, surprising that the secondary effects of the same disease should, in like manner, not, as a rule, be inoculable upon those patients whose constitutions are already affected. If experiments are to be appealed to, they should be made upon those who have not previously had the disease; and as such experiments, for obvious reasons, cannot with propriety be tried, clinical observation must be relied upon for the general elucidation of this subject.

The following cases, selected from among others, and noted with much care, show that secondary syphilitic disease may be communicated by contact from one individual to another, and that one form in which it is so communicated bears a very strong resemblance to the primary indurated chancre. It is obvious, however, that secondary syphilis is not readily communicated by contact. Husbands and wives, children and their nurses, are constantly seen living together, where one party alone is affected, and the disease is not communicated to the other.

Many secondary syphilitic affections do not yield any fluid secretion, and this is probably a necessary condition for inoculation. In their ordinary state, these affections would not be inoculable, but clinical observation renders it highly probable that, under conditions of increased action, they may become the means of communicating the syphilitic disease. An indurated chancre which has ceased to be communicable to another part of the patient who bears it may, under irritation, be made to produce a kind of inoculation;¹ and secondary syphilitic affections, which are not

¹ 'Medico-Chirurgical Transactions,' vol. xlii, p. 438.

capable of being communicated, under ordinary circumstances, to another individual, may, in like manner, under increased activity, become infectious.

CASE 1.—Frances H— was married in August, 1858. In January and February, 1859, she was under my care for sore throat, tubercles around the anus, and stricture of the rectum. These symptoms were supposed to be of a syphilitic nature, and the patient was accordingly subjected to mercurial treatment, which, however, she was unable to continue as long as was desirable.

In the beginning of May, the husband, who, up to this period, had not had syphilis, discovered a small red pimple on the prepuce. This pimple gradually enlarged, and in about a month assumed the appearance of a tubercle imbedded in the skin, without ulceration. A well-defined, cartilaginous induration, which terminated abruptly, gradually extended itself from this point, and became divided into two parts by a fissure caused by the retraction of the prepuce. With the exception of this fissure, there was, during the course of the disease, no ulceration nor abrasion of the surface. The accompanying drawing (see Plate I), by Dr. Westmacott, represents the induration as it existed on the 24th of September, and it also represents the glands in the groin, enlarged, but not inflamed. The condition of the inguinal glands in this case was exactly the same as that which is so well known as accompanying the primary infecting sore.

After the induration had fully developed itself on the husband's prepuce, the wife was carefully examined, and the edge of an abrasion or ulceration within the *os uteri* was distinctly seen. On the 23d of September, at her full period, she was delivered of a child, which, from its condition, was supposed to have died some ten days previously. About this time the husband became much emaciated, the posterior cervical glands enlarged, and some faint, copper-coloured blotches appeared on the forehead. The secondary eruption would, no doubt, have been much more developed,

had it not been for the mercurial action to which he was subjected.

If testimony, obtained with much care, and under very favorable opportunities, is to be believed, neither husband nor wife had exposed themselves to contagion from any illicit source between the period of their marriage and the commencement of the disease in the man.

In this case, then, we have the wife infected with secondary syphilis before marriage, but living with her husband for nine months without communicating to him any disease. In the beginning of the year 1859 the uterus is called into increased activity; an abrasion or ulceration (which from the history of the case must be regarded as of a secondary syphilitic character) takes place within the os uteri, and then the husband presents a disease with all the characters of the specific adhesive inflammation.

CASE 2.—Susan B—, æt. 66, presented herself at King's College Hospital on the 24th of October, 1853, with a scaly, copper-coloured eruption raised above the surface of the skin, and having in some parts a tubercular appearance. She had also a well-defined and extensive, indurated sore on the lip. She stated that she had never had any venereal affection, and had given birth to twelve healthy children.

Eighteen months before applying to the hospital she had noticed a pimple on the inside of the upper lip, which contained a little clear fluid. This broke, and a small sore formed, which, however, again healed in about a month, leaving a circumscribed induration. Three weeks ago the sore again broke out, and gradually extended until the date of her application at the hospital. An eruption made its appearance between three and four months from the first commencement of the pimple on the lip, and this had continued to recur at intervals ever since.

This old lady had taken her granddaughter to nurse, and having become exceedingly fond of it, was in the habit of constantly kissing it. Her son, she knew, had suffered from

some venereal disease five months previous to the birth of the child; her daughter-in-law had died a few days after her confinement, and had not suckled her infant, which was consequently brought up by hand. When the child was ten weeks old some sores appeared on its tongue and lips. These were followed, a week afterwards, by an eruption on the nates, which was still visible when the grandmother applied at the hospital, and was clearly of a syphilitic nature. This woman might have, and probably often did, kiss her son with perfect impunity, but the syphilitic poison appears to have acquired increased activity with the new life of the child, and with that increased activity to have become more readily communicable by contact.

CASE 3.—Mr. and Mrs. — were married in August, 1854. Mr. — had contracted syphilis in August, 1853. The sore remained open for three months. About a month after it had healed, a secondary eruption appeared upon the skin. Four months before his marriage he considered himself quite well; there were the remains of a syphilitic eruption, however, visible, and on the inner fold of the prepuce a very small, circumscribed induration could still be felt. A month after marriage, Mrs. — perceived an indurated spot on the left labium, which was sore when touched; some small tubercles subsequently formed, and the glands in the groin became enlarged, but not inflamed.

In the beginning of December this patient had some condylomatous excrescences at the margin of the anus, and an extremely painful fissure of the rectum. In another week an unmistakeable syphilitic eruption covered the body. She had not up to this time become pregnant. In this case, again, simple contact would not have been sufficient to communicate the disease; but under increased action the poison seems to have gained an activity which it had not before, and to have become again contagious.

It has been formally and perseveringly denied that secondary syphilitic disease can be communicated by contact from

one individual to another. A theory has been based upon such assertions, which, in the name of science, has inflicted much domestic misery, and has often been the cause of the most painful and unjust accusations. There is but too much reason to believe that husbands have not unfrequently been led to suspect the fidelity of their wives, when they themselves were alone to blame;¹ and, on the other hand, men have been most unfairly accused of having contracted fresh syphilitic disease after marriage, when in reality the symptoms have arisen from the recurrence of an old disease of which they may have thought themselves perfectly free.

CASE 4.—A gentleman and lady were married in the year 1859. Two months afterwards the wife experienced some irritation about the labia, which was followed by specific enlargement of the inguinal glands on both sides. Four months later there was a well-marked syphilitic eruption on the body, and enlargement of the posterior cervical glands. There was also at this time the remains of an indurated tubercle, which did not appear to have ulcerated, on the left labium, and the inguinal glands remained enlarged, but not tender nor inflamed. This patient had not become pregnant; the husband had very slight remains of an eruption, the result of syphilis contracted four years previously. There was also very slight remaining induration in the site of the original disease, and the skin in the immediate neighbourhood had since his marriage been occasionally inflamed and excoriated. In this case the friends of the lady, having received imperfect medical information, accused the husband of having contracted fresh disease after his marriage.

The form of secondary syphilitic inoculation to which I have now drawn attention commences by a chronic adhesive form of inflammation, which terminates in a perfectly cir-

¹ The number of instances in which unmarried women have been unjustly accused, and had a twofold injury inflicted upon them, by those under whose protection they are said to have been, is probably very much greater.

cumscribed thickening. This may be raised from the surface in the form of a pimple or tubercle, or it may produce an induration not at all raised above the surrounding parts. The cuticle is generally abraded over the affected surface, but ulceration is no essential part of the disease. These secondary inoculations frequently indeed do ulcerate, but they also often run their course without any material loss of substance. When ulceration does occur, it not unfrequently manifests itself at the time when secondary or constitutional symptoms are about to appear. A period of incubation, varying from one to six or seven weeks, generally occurs between the contagion and the manifestation of the symptoms; any idea of destroying the poison with caustic within the first few days is here quite out of the question. Even if applied immediately upon the disease being perceived, it will not check the morbid action. This may have taken some four or five weeks to develop itself, and cannot now be counteracted by the destruction of a small portion of the tissues which have imbibed the poison. Excision of the indurated part will not stay the disease; the cut surface will take on the specific morbid action. Having, however, on several occasions removed specific indurations, I am inclined to think that the patients have ultimately done much better than they would have done had the original condition been allowed to remain. The subsequent indurations which have taken place on the cut surfaces have appeared to be more under control than those which first form in the course of the natural disease.

In considering the manner in which the venereal poison was communicated to the inhabitants of the South Sea Islands, Hunter observes that it was almost impossible to carry a chancre so long a voyage. Any difficulty there might be upon this head immediately disappears, as soon as the contagious properties of secondary syphilis (under certain circumstances) are recognised.

Babington had affirmed long ago that the induration might precede the ulceration¹ in syphilitic sores. This is

¹ 'Works of Hunter,' by Palmer, vol. ii, p. 321.

formally denied by Ricord.¹ In the form of secondary syphilitic inoculation under consideration, the induration undoubtedly does appear when there is a slight epithelial abrasion only upon the surface, and may exist for weeks without any action that can be designated as ulceration. This character, however, does not serve to distinguish the effects of the secondary from those of the primary syphilitic inoculation. In both the induration is the most common characteristic of the disease; in both the ulceration may be entirely absent.

CASE 5.—In the beginning of November a patient came under my notice at King's College Hospital, with a well-marked, circular induration, terminating abruptly in the upper part of the prepuce. He had also a viscid discharge from the urethra.

During the whole of the month of November the induration gradually increased; the epithelium was abraded from a circular patch over its centre, and a whitish fluid was secreted from its surface. Beyond this there was not, during the whole of the period, any appearance whatever of ulceration. Upon microscopical examination, the secretion was found to consist of granular matter and epithelial débris, floating in a transparent fluid. It contained no pus-globules. The accompanying drawing (see Plate II) represents the induration on the prepuce, and a corresponding red patch on the glans penis. There was no induration in the latter situation.

CASE 6.—The wife of the subject of the last case was admitted into the hospital, and carefully examined. An extensive induration was found on the opposed surfaces of the labia, and extending over the inferior commissure. The parts were red, tender to the touch, and denuded of epithelium. They secreted a whitish fluid, which, upon examination by the microscope, was found to contain granular matter and epithelial scales, but no pus. This patient had been out of health four months, having exposed herself to contagion six months before her admission into

¹ 'Leçons sur le chancre,' p. 88.

the hospital. Three months before her admission she felt a burning pain, with itching, and swelling of the labia, accompanied by slight discharge, and pain on walking. The inguinal glands also became specifically enlarged.

As these two last-mentioned patients had constantly lived together for twelve months, and as neither of them had previously had any syphilitic affection, it appears evident that the non-ulcerating disease communicated to the husband was of a primary nature; and that there was a period of incubation of considerable length before the disease manifested itself. Neither the character of the induration, nor the period of incubation, then, will suffice to distinguish the primary from the secondary form of natural syphilitic inoculation; and in the absence of a correct history, we have, I believe, no means of saying positively, in any individual case, whether the poison was derived from a primary or a secondary affection.

The proportion of indurated sores upon the face and head is much larger than in any other situation. This probably arises in part from the face and head being exposed to secondary syphilitic inoculation in a much greater relative degree than other parts. The same principle may account for the fact that syphilitic sores on the fingers are generally of the indurated kind; but here the proportion approaches much nearer that in which other parts of the body are affected.

The following cases may be regarded as probable instances of natural secondary syphilitic inoculation, although, as shown in the preceding remarks, the same form of disease may be communicated either by primary or by secondary syphilis.

CASE 7.—A gentleman, who had been married several years, unfortunately exposed himself to contagion on the 24th of March, 1856. On the 2d of April, when I first saw him, there was a circumscribed abrasion on the upper and back part of the glans penis. This presented exactly the appearance as if a limited portion of cuticle had been

peeled off, leaving a red, smooth, and glazed surface. Knowing, from previous experience, that sores in this particular locality do not become indurated as they do elsewhere, my attention was particularly directed to this point. The patient attended regularly, and at every visit I examined carefully the condition of the parts. From first to last no induration could be perceived around the sore. On the 29th of April a syphilitic eruption had made its appearance on the skin; and now, for the first time, a well-marked and circumscribed induration of the prepuce, in a part not previously affected, was perceived. This induration never evinced the slightest disposition to pass into ulceration. The patient had never before had syphilis, and recovered under the use of mercury.

As the induration may exist in the specific adhesive inflammation without the ulceration, so may the ulceration or abrasion, as proved by the preceding case, exist for a time at least without the induration. They may follow each other at an uncertain interval upon the same spot, or they may, in a few rare cases, such as the foregoing, be separated, and each condition incident to the disease may appear at a different part.

The period of incubation, which has so frequently been said never to exist in any form of syphilitic inoculation, was well marked in the following cases.

CASE 8.—A first lieutenant in Her Majesty's navy, after having been five weeks at sea, saw a small pimple on the prepuce, which became abraded or ulcerated. He was told that it was nothing. The disease, however, persisted, and he was then subjected to a course of mercury whilst at sea. A secondary eruption followed, for which he underwent a course of calomel baths in the autumn of 1859.

CASE 9.—A young midshipman, on his return from sea, had intercourse with one woman only. He had a viscid discharge from the urethra, for which he attended very regularly, as he was most anxious to get well before he

again went to sea. In a month the discharge from the urethra suddenly ceased, but an induration, accurately circumscribed, and accompanied by a superficial abrasion, appeared immediately behind the glans penis on the right side. The corresponding inguinal glands soon became enlarged and hard, but not inflamed. The induration slowly increased, and there was every reason to suppose that it would soon be followed by a secondary eruption, when the further observation of the case was prevented by the patient being obliged to join his ship.

CASE 10.—A gentleman had a superficial abrasion on the right side of the prepuce, for which he sought medical advice as soon as it appeared. It yielded very little secretion, and soon became surrounded by specific induration. The secretion was frequently examined by the microscope, but never, as far as was ascertained, contained any pus. An inguinal gland on the right side became enlarged, indurated, but not inflamed, and a secondary eruption followed. From peculiar circumstances, this gentleman was enabled to fix the period between exposure and the appearance of the abrasion at exactly one month.

CASE 11.—A young lad presented himself at King's College Hospital on the 2d of December, 1859, with a well-marked circular and circumscribed induration in the upper part of the prepuce, immediately behind the glans. He had had one connexion only; this was followed by a discharge from the urethra, unaccompanied by any ardor urinæ. After the lapse of a month, the discharge ceased, and the induration made its appearance; this was at first accompanied by abrasion of the surface, which, however, soon again became covered with cuticle exactly resembling that of the surrounding parts. The glands in the groin were specifically enlarged.

CASE 12.—A gentleman, whose wife was ill, had one intercourse only with a woman he accidentally met. Some time

after, an abrasion appeared on the prepuce, for which he got the best medical advice he could obtain in Dublin and elsewhere. He was told that his disease was of no consequence. A month after exposure to contagion, the disease altered its character, and soon presented a circumscribed induration, slightly ulcerated upon its surface. The induration was excised, and the patient was put upon a course of calomel baths. The cut edges became indurated, and a slight eruption on the arm followed. But for the previous history, this eruption would scarcely have been suspected to have been syphilitic. Fifteen months afterwards this patient was perfectly well, having had no recurrence of any disease.

A very considerable number of cases have now fallen under my observation in which patients have been told by surgeons of eminence that their disease was of no consequence, and where the slight abrasion or ulceration which they may have had has subsequently become specifically indurated, and has been followed by secondary symptoms, often of the most troublesome kind. There is no doubt that medical men have often been misled by trusting to the assertions so often and so unreservedly made, that the specific characters of a chancre always follow immediately upon inoculation; and that the induration in the infecting variety always shows itself within the first few days.

The preceding cases are sufficient to show that, in one variety, at least, of infecting disease, a period of incubation does exist, both with regard to the induration, and also with respect to the ulceration or abrasion. The former, as has been stated, may appear without the latter, and the latter may be present for a time without the former. The absence of induration during the earlier periods of the disease is, therefore, no safe criterion as to its non-infecting¹ qualities. A discharge from the urethra not unfrequently precedes the form of disease now under consideration. This discharge

¹ Infection is used to indicate the reception of the poison into a patient's system; contagion, the transmission of the poison by contact from one individual to another, or from one part to another.

may easily be mistaken for gonorrhœa. It differs, however, in being more viscid and tenacious in its nature ; in not being accompanied by the same amount of irritation or ardor urinæ ; in its short duration, and often abrupt termination. It is quite possible that it was this kind of matter with which Hunter inoculated himself when he produced a thickened sore, that was followed by secondary symptoms.¹

The disease which I have attempted to describe has, then, a period of incubation of about a month's duration, but varying, nevertheless, in certain cases, from six or seven days to as many weeks. It may be preceded by a discharge from the urethra, which generally ceases upon the appearance of the specific disease. The first symptom of this specific disease may be a slight ulceration ; or it may be an induration, with a superficial abrasion of the epithelium only, unaccompanied by any ulceration ; or the ulceration and induration may appear simultaneously. The disease is accompanied by specific indolent enlargement of the inguinal glands, and is followed, if left to itself, by constitutional syphilis.

¹ The discharge in question does not appear in any way connected with ulcers within the urethra.

DESCRIPTION OF PLATE III.

- I.—(Described as Plate I in Mr. Lee's paper), showing secondary non-ulcerating syphilitic inoculation.
- Ia.—Enlarged, but not inflamed, inguinal glands, accompanying the above-mentioned inoculation.
- II.—(Described as Plate II in Mr. Lee's paper), representing primary non-ulcerating syphilitic inoculation.