LESSON XXIX.

DIAGNOSIS AND TREATMENT OF CHANCROID.

Difficulties in diagnosis. May be confounded with herpetic lesions. Treatment of. Modified by condition. Reasons why insignificant lesions often require great consideration. Management in early stage. Treatment by excision, by cauterization. Best methods described. Character of subsequent treatment. Various applications. Diagnosis and treatment of the indurated chancroid, of the serpigenous chancroid, of the follicular chancroid, of the papulo pustular variety, of the ecthymatous form. Diagnosis and treatment of sub-preputial chancroids. Possible source of error in diagnosis.

When seen in the earliest stage—viz., the Chancroidal Abrasion—it is difficult, and often impossible, to decide whether it is the result of irritation through some vicious vaginal secretion or lesion other than chancroid, or not. Hence all lesions, first seen as abrasions, should be treated tentatively, until the characteristic chancroidal ulceration surface is developed. A mild, astringent sedative lotion, say three grains of the acetate of lead to the ounce of rose water, may be applied on a thin film of borated cotton three or four times a day. If the lesion is a pustule, and has made its appearance a day or two, or three or four after exposure, it may be of herpetic origin. A single herpetic pustule is not very common. A solitary pustule, following five or six days after a suspicious connection, is more apt to be chancroid. Careful examination will sometimes detect one or more little vesicles, or their remains, in the immediate vicinity of the pustule. This warrants the inference that the pustule had its origin in a vesicle, and was thus of herpetic nature and not chancroid, which always *begins* as a pustule. We may venture, in such case, to expect that simple treatment will suffice, especially if to this is added rest and freedom from irritation of every kind. Nothing is more essential, in the treatment of any inflammatory lesions, than rest and cleanliness. This is eminently true of chancroid, and all the lesions that may be mistaken for it.

If the suspected lesion *increases*, in spite of rest, cleanliness and a mild sedative lotion, it is safe to include it at once under the class Chancroid. If it is inclined to be superficial and sluggish, we will designate it as of the slowly destructive variety, and treat it with a solution of sulphate of iron, applied on a film of cotton two or three times daily. This, or an application of a mild solution of carbolic acid, is often promptly curative. If there is much redness or tenderness, the watery extract of opium may be added, thus:

℞ Ferri Sulph. grs. X.
Ext. Opii Aq. grs. X.
Aq. ad. ℥i.
M.

℞ Acid Carbolic, grs. V.
Sol. Morph, U.S.P. ℥i.
M.

The general condition should also be considered. If there is reason to suppose the patient especially inclined to suppurative trouble from scrofulous diathesis, or from general debility, or personal idiosyncrasy, in addition to any measures addressed to the general health, it may be well to administer small doses of the sulphide of calcium, $\frac{1}{10}$ gr. every two hours, either in freshly made solution or in parvules. These measures, even in the very slight forms of suppurative lesion (which are oftentimes difficult to distinguish whether of true chancroidal origin or not), will in some cases be found worth considering and adopting. Many cases of most insignificant character, in a surgical point of view, cause great anxiety and mental suffering, and should be met, at the outset, with the greatest consideration from the surgeon, not only because of conditions present, but because of the *possibilities* that these innocent-looking lesions may hide the progress of a syphilitic inoculation. If under the above mentioned mild applications, the sore (or sores, as there are commonly several) heals rapidly or slowly, and, finally, cicatrizes completely, it is yet most important to keep in mind the fact, that sometimes, just such lesions, even weeks after an apparent cure, begin slowly to in-

durate and finally demonstrate that a syphilitic infection has been initiated. It is by no means infrequent that such an accident occurs under cover of a supposed chancroid or an herpetic eruption; or an abrasion irritated into seeming viciousness, by simple vaginal secretions, or a want of cleanliness or care.

If, however, the lesion shows early, that it belongs to the actively progressive variety of chancroid; if it becomes sensitive, and progresses in depth and extent, with undermined and irregular edge, and worm-eaten, sloughy floor (and this may often be seen under a good magnifying glass a short time after its appearance), active measures are often promptly curative. If the ulcer is situated on the free margin of the prepuce, it may sometimes be removed by excision—previously cleansing the parts with a 10-grain solution of carbolic acid—and cutting through the entire thickness of the prepuce, then stitching the edges together. Union by first intention may thus be secured. Great care will be necessary to prevent inoculation of the cut surfaces, *in which case, the chancroid will be greatly increased.* When situated on the reflection of the prepuce, or in the fossa glandis, or on the glans penis, or in the vicinity of the frenum, or in any locality on the male or female genitals, where they may be thoroughly and easily exposed, and when the inflammatory action is not great, the complete destruction of the chancroid—one or more—should be effected at once. The best and most convenient means is by application of the strong nitric acid. The solid nitrate of silver stick is often used for this purpose. This is not sufficiently powerful to be depended upon. The actual cautery is excellent, but formidable, requiring ether, to be well borne. The nitric acid may always be at hand, and is, when well applied, thoroughly efficient in the great majority of cases. A convenient method of application is by means of a film of cotton, wound upon the point of a sharpened match or a wooden toothpick, using only enough to hold a drop or two of the acid. It may thus be carried to the surface of the chancroid without danger of dropping on healthy tissues. Apply freely and let it soak in, until the floor and edge

are completely saturated, repeating the application, if necessary, until this is effected. A small chancroid requiring a minute or so, but one the size of a dime may require several. If favorably situated, the size of the lesion does not contraindicate the attempt to destroy it in this manner. When the saturation with the acid is complete, a bit of cotton, soaked in a solution of acetate of lead and extract of opium—10 grains each to the ounce of water—may be applied. If the sores are multiple, or large, placing the patient under the first effect of ether, for the application, is very desirable. The resulting slough, usually falls off within from three to five days, and, if the application has been effectual, a healthy granulating surface will be left. This heals readily under the slight stimulation of a weak solution of carbolic acid—5 grains to the ounce. Should the ulcerative action show a disposition to return, a second application may be made. This may even be required a third or a fourth time, if great care has not been taken to destroy all the tissue involved in the chancroidal process. If, instead of active destructive action, there should simply be a sluggish and unhealthy condition of the sore remaining, this will be best treated by applications of iodoform in powder or in combination with equal part of vaseline:

℞	Iodoform, ʒ i.		Iodoform, ʒ i.
	Vaseline, ʒ i.	or	Balsam Peru, ʒ i.
	Oleum Rosæ. X.		M.
	M.		

If the secretion is very profuse, 10 grains of tannic acid may be added. The odor of iodoform is often an insuperable objection to its use. The addition of balsam Peru, or a few drops of any of the essential oils—lavender, bergamot, neroli—or ten grains of thymol to the dram of iodoform, will sometimes make it endurable. But the best deodorizer for iodoform that I have found is the oil or attar of roses, in the proportion of one drop of the oil to ʒ i. of iodoform. Nothing favors the best results of applications, and the most rapid healing, so effectually as complete rest of body and mind.

DIAGNOSIS AND TREATMENT OF THE INDURATED CHANCROID.

One of the chief diagnostic points in chancroidal sores, is the freedom from positive induration; a suppleness of the tissues on which they are situated. A certain degree of induration, however, may be present from irritant or even astringent application, or friction by the clothes of the patient, raising the question as to whether or not this is the result of syphilitic infection. In such cases the sore should first be treated by removal of all irritating surroundings, by rest, and an application of the lead and opium dressing. If the induration is not syphilitic, it will pass off under this treatment, when the destructive method may be pursued as previously indicated.

The neglect of cleanliness, undue exercise, long standing position or irritant applications, irregular hours, or alcoholic excess, especially in persons of dissipated habits and low genernl condition, often causes a highly inflammatory condition of the chancroid. The immediate result of this, is to increase pain and swelling of the tissues in the vicinity of the chancroid, and to accelerate the destructive action. Soaking the parts with opiated water as hot as can be borne, and as continuously, with attention to the general care of the patient, is the most prompt way of reducing this complication. If the lesions are upon a female, prolonged hot sitz baths are essential.

DIAGNOSIS AND TREATMENT OF THE PHAGEDENIC CHANCROID.

If relief does not follow, the phagedenic condition may be superimposed upon the inflammatory. Still more rapid, destructive action with putrescent odor, the true "molecular gangrene" takes place as alluded to in the previous description of this form of chancroid. When rapid destructive action is thus set up, and important parts are threatened, a prompt and thorough soakage of the shreddy, pultacious, sloughy surface with strong nitric acid, is indicated, or, better still, an application of

the actual cautery, repeated from time to time, until, by application of hot water, or by the aid of charcoal poultices, the slough is removed. Free use of the iodoform in powder is also efficacious, not only for its disinfectant but for its anæsthetic effect. The pain in rapidly destructive lesions of this sort is often very great, and the internal administration of opium acts beneficently. Twenty-grain doses of the potassio-tartrate of iron, as recommended by Ricord, may usually be administered to advantage. At Charity Hospital, the treatment by immersion in hot water by means of the sitz bath, with the water kept up to 100 F., has proved one of the most effective adjuvants in the treatment of sloughing phagedena in females, (in whom applications are usually most difficult,) keeping the patient in for even ten or fifteen hours consecutively, and practically the same method for males.

DIAGNOSIS AND TREATMENT OF THE SERPIGENOUS CHANCROID.

This is notably the most rebellious to remedies of all the forms of venereal lesion. The size to which it insidiously attains under the usual treatment for superficial slowly destructive chancroids, (iodoform, carbolic acid, etc.,) is apt to cause a hesitation in resorting to applications of nitric acid, acid nitrate of mercury, or any of the destructive agents in ordinary use for the treatment of chancroids. The apparently healthy granulations which spring up in the sore, and which often go on to production of new integument at one side, even while it is slowly melting away at the other, flatters the surgeon into the belief that mild measures, with appropriate constitutional treatment, will finally effect a healing. The result is, that serpigenous chancroids are occasionally met which have existed for years, and have come gradually to occupy many inches of surface.

Especially is this seen in females, where the groins, the perineum, the entire vulva, the vaginal walls, the rectum, and the integument around the anus, may be continuously involved. Few venereal hospitals, or out-door

departments, are without specimens of this sort. Passing usually under the title of *chronic chancroid*, (to which a suspicion of obscure syphilitic constitutional vice is usually attached) they finally, in most cases, cease to receive any especial surgical care, and are often relegated to the class of incurables. The actual cautery is the one and only effectual remedy in the treatment of serpiginous chancroid, no matter what the size or locality. Placing the patient under the influence of an anæsthetic, thoroughly apply at a white heat the cautery iron, or the platinum point of the gas, or the galvanic cautery, over the entire surface, following down into every crypt and sulcus, with the same animus as if dealing with a well-marked case of *lupus excedens*. Follow up with hot water immersions, sedative lotions, iodoform, etc., until the slough has separated, and as long as the new surface appears in satisfactory condition. If a retrograde is threatened, re-apply the cautery, as often and as long as is necessary. This will not usually be required oftener than once in one or two weeks. Several cases within my experience, that had been considered beyond the reach of surgical aid, were, in this way, finally brought to a complete cure.

The modifications of chancroid from location are noteworthy: first, in regard to diagnosis; second, in regard to treatment.

DIAGNOSIS AND TREATMENT OF THE FOLLICULAR CHANCROID.

This commencing apparently underneath the mucous membrane, may quite readily escape observation, especially when it commences deep in the substance of the follicle. The inflammatory swelling and redness often precedes the appearance of the pustule several days.

DIAGNOSIS AND TREATMENT OF THE PAPULO-PUSTULAR CHANCROID.

This is most often seen on the integument of the labia majora, and the mons veneris, of females. They are usually

sluggish in character and quite inclined to burrow. They originate in a follicle, and are occasionally quite numerous, a dozen or more appearing at about the same time, and usually in connection with previously existing chancroids of considerable size, within or about the vulva. No applications have any effect which are not preceded by removal of the small scab and discharge of the contents of the pustule. After this, the treatment may be by prompt destructive agents, or by iodoform. If they are not discovered and treated early and effectually, the probabilities are in favor of coalition of the pustules, extension of the chancroidal process, and a stubborn persistence of the trouble.

DIAGNOSIS AND TREATMENT OF THE ECTHYMATOUS FORM OF CHANCROID.

This is covered by a broad thin brownish scab, is usually on the integument of the penis or on the thigh, and may be mistaken for a simple herpetic lesion. Removal of the scab shows the characteristic chancroidal appearance of the edge and floor of the sore. Very often it belongs to the slowly destructive variety of chancroid, penetrating the thickness of the integument, or nearly so, but without much tenderness or surrounding inflammation.

Treatment by prompt destruction of the diseased tissue, if active. If sluggish, application of iodoform, pure, or in combination with tannin, or balsam Peru, or by carbolic acid and glycerine, equal parts, applied in the same way as directed for use of strong nitric acid. For the same purpose, a solution of permanganate of potass, 2 grs. to the ounce of water, or sulphate of copper, 2 to 5 grs., may be applied on a little borated cotton or lint. This if on the penis should be protected by a thin wrapping of oiled silk, retained by a narrow cotton bandage, the end of which may be conveniently split into four tails, brought around, and tied.

DIAGNOSIS AND TREATMENT OF SUB-PREPUTIAL CHANCROIDS.

These require especial instructions for management,

only when, on account of the narrowness or swelling of the preputial orifice, they cannot be readily exposed. If the phimosis is congenital, the existence of sub-preputial chancroids may be infered by more or less swelling and tenderness following a suspicious sexual connection. The two difficulties with which they may be confounded are, balanitis and initial lesion of syphilis. Mild astringent sub-preputial injections, as, 5 gr. solution carbolic acid, 10 gr. solution of sulphate of iron, or the lead and opium solution, may be used. If the phimosis is inflammatory, persistent soakage of water as hot as may be comfortably borne will also be required. If the reduction of swelling finally permits exposure of the affected parts, they may be treated according to conditions presenting. If, on the contrary, the swelling and sensitiveness increase, and blood is mixed with the secretion—and this in spite of rest and fomentation—no time should be lost in slitting up the prepuce on the dorsum, previously syringing out the preputial cavity with a 10 grain solution of carbolic acid. The division may be done with the bistoury, and the cut surfaces thoroughly dried and cauterized with pure carbolic or nitric acid. But the best way of dividing the preputial tissue in such case is by introducing a bit of pure platinum wire, perforating the prepuce at the base of the glans superiorly, and attaching it to the galvanic cautery battery and drawing it slowly through the intervening tissues. A small wooden tube, wetted, may be slipped over the wire to protect the glans. Should the lesion be situated on the inner surface of the prepuce, or should the slitting not expose the whole diseased surface, the circumcision may be completed with the wire, or with a bistoury if preferred.* Should the lesion prove to be chancroid, the danger of inoculatiou of cut surfaces is always great,

* A case of threatened sloughing of the prepuce from chancroidal action in its interior, occurred in my service at Charity Hospital not long since. The swelling was enormous, and extensive destruction of tissue was imminent. The whole prepuce was removed by means of the galvano-cautery wire, without hæmorrhage. Several chancroids in the fossæ glandis were cauterized at the same time. The case went on to a rapid and complete recovery under antiseptic and simple applications.

no matter what are the precautions taken; but the danger of damage to the glans penis, through the chancroidal action, if not arrested, by relieving tension and by potent local application, is so great that the inoculation of the entire cut surfaces is a lesser evil. The after-treatment of the circumcision, under such circumstances, is the same as ordinarily pursued, until some evidence of chancroidal action is manifest. In this and in the chancroids or other lesions which may be left on the glans or elsewhere, the same application already described for the lesions on open surfaces, will be required. It must not be forgotten that an initial lesion of syphilis, irritated by confined secretions, may simulate a chancroid in the inoculability of its secretion, and that a chancroid may be irritated so that induration shall be present, simulating that of the initial lesion of syphilis. Previous instructions as to diagnosis in such doubtful cases will guide.