occur, the effects of which may prove as grave as when every phase of the active period presents the typical manifestations. Once recognized as syphilitic, no matter how slight the lesions of the initiatory period or that of general infection, the treatment should be as systematic, as thoroughly considered and carried out, as when well-marked in all respects. It is only in this way that we gain the great security against the occurrence of sequelæ, and if occurring, secure the lightest forms of trouble. Unfortunately, relief from the immediate and appreciable accumulations constituting sequelæ (the so-called gummy tumors of syphilis) does not always mean cure: recurrences, especially of the accumulations in the testes, are not uncommon, as in the following:

Case V. P. P. S. This patient gave a clear history of the characteristic eruptions of active syphilis occurring twenty years ago. Good health up to five years, when his right testicle became enlarged to the size of his fist. He stated that under occasional treatment of iodide of potassium the testicle grew very much smaller; in fact, he thought his difficulty almost cured, when the swelling returned. On examination, a large quantity of fluid was found in the tunica vaginalis. Four ounces being drawn off, it became evident that the tumor remaining, while not larger than a normal testicle, was irregular in shape—nodulated—especially at the lower portion, where it was of cartilaginous hardness. The upper portion alone was sensitive to pressure. It thus became evident that a fibrous degeneration of the entire inferior portion of the testicle had taken place, and that its secretory structure was almost entirely destroyed; the sensitiveness to pressure indicating the portion which had thus far escaped.

Remarks on Case V.—In the post-mortem examination of similar cases, it is found that two forms of trouble frequently (and always in long-standing cases) unite in the so-called chronic orchitis of late syphilis, the one usually earliest to manifest itself being general infiltration or a localized tumor at one or more

points in the substance of the organ. This accumulation is found to be made up of materials characteristic of the "*gummy tumor*" occurring in other localities. Subsequently to the occurrence of these tumors a marked growth of fibrous tissue is found to take place, *apparently commencing in the lobular spaces*, and gradually encroaching upon the seminal lobules until they are destroyed. The elements of new formation, traversing in this same way the substance of the entire organ with a cicatricial net-work, the contraction which naturally follows often results in the total destruction and almost complete disappearance of the organ. This explains what we find in the present instance. The history points to a general so-called gummy infiltration, involving, probably, the epididymis and the body of the testicle, and a later development of fibrous tissue, which has, by its subsequent contraction, reduced the organ to its present indurated and atrophied condition. It is interesting here to recall the fact, made prominent by all authorities on syphilis, that cicatricial deposit and its subsequent contraction and strangulation of the parenchyma of the testicle, resulting in true atrophy, is characteristic of the influence of late syphilis, and occurs not alone in the testicle, but notably also in the liver and the kidneys. The tendency to formation of fibrous tissue has also been recognized (from apparently the same causes) at other points, as in the larynx, intestine, etc. Ranvier and Cornil significantly remark* that all profound syphilitic lesions of the mucous membrane occasion a proliferation and a production of connective tissue usually much greater than in diseases due to other causes. It is a well ascertained clinical fact that gummy infiltration precedes the stage of cicatricial deposit, and that while both the gummy tumor and cicatricial atrophy, are often met with in the same testicle, general enlargement *first occurs;* then comes the recognition of localized deposits of gummy material, and later, often several years after, compression, due to contraction of

* "Patholog. Histol.," page 399, 1880.

cicatricial deposit, finally takes place, and atrophy of the testicle results. The clinical evidences are strongly in favor of considering the gummy exudation as the *basis* of the cicatricial deposit, and the different subsequent conditions, as but stages of the same pathological process, terminating finally in atrophy, through cicatricial contraction. In favor also of this view, and as affording a possible explanation of the cause and mode of formation of the cicatricial deposits in other organs, due to late syphilis, we may recall the statement of Rindfleisch in regard to the most favorable conditions for the development of new cell formations, namely, "Contact with tissue and *relative rest* of the emigrant cells induces them first to essay their amœboid mobility, and then to division." * But *absolute* rest, *stasis* of such cells, or of any cells, is necessary for their *development into tissue*. All fibrous or connective tissue is said to be made up of the spindle-shaped or connective-tissue cells and fibrillæ which are simply a higher stage of development of the lymphoid cells and corpuscles, evolved from and circulating in and through the lymphatic organs, spaces, and vessels. This is exactly the essential material of which *cicatricial tissue*, wherever found, is made up, and this is exactly the sort of tissue which has caused the mischief in this testicle, and which by authorities is accepted simply as one of the many mysterious phases of the so-called tertiary period of the disease. Only a single condition is lacking, however, in order to place this cicatricial deposit, due to syphilis, in the line of ordinary pathological conditions, and that is, one which will account satisfactorily for the presence and quantity of embryonal or formative cells in the localities where the cicatricial tissue is subsequently developed, and the causes of their enforced accumulation and stasis in those localities, during a period sufficient for the formation of such tissue.

Ludwig and Thomsa † claim to have demonstrated a

* Rindfleisch, "Path. Hist.," p. 94, sec 77.

† Stricker, "Human and Comparative Histology," Sydenham ed., vol. i., p. 311, *et seq.*

very generous distribution of lymphatic channels in the testicle, the liver, and the kidneys, organs in which the cicatricial contraction due to the influence of late syphilis is chiefly found. Especially are the lymphatics claimed to be numerous and ample in the testicle, where injections performed upon dogs have shown that lobular spaces are simply lymph sacs or lacunæ. In point of fact, the seminal lobules are literally inclosed in lymph chambers, and the reticulation of lymph channels not only surrounds, but permeates, every portion of the testicle and its appendages. The same rich distribution is shown also in the liver and kidneys. Having, then, the material necessary for the formation of cicatricial tissue, and in localities where it is known to develop, the essential condition to produce it, is an enforced stasis of cell elements, through interference with the lymph circulation of these organs; in short, *obstruction of the lymph channels* at various points.

GUMMY TUMORS OF THE INTEGUMENT AND CELLULAR TISSUE.

CASE VI. W. W.; 49. Presented three large, sharply cut, apparent ulcerations on the inner aspect of the right leg just below the knee; two about two inches each in diameter, quite circular, and a third about two inches in length, formed by the union of two about an inch in diameter. All had penetrated the integument completely; the surrounding integument was only slightly inflamed. Two small tumors just under the integument on the outer side of the right thigh, movable under the skin, painless, and another nearer the knee, attached to the integument, and distinctly fluctuating. Here were, then, three characteristic stages in the progress of gummy lesions of the integument. There was a clear history of syphilis irregularly treated about fifteen years previously. Alleged occurrence, four or five years previous, of large sores with heavy black scabs upon them, chiefly on the legs and arms, which were cured by iodide of potassium. Cicatrices paler than the surrounding skin were found corroborating the statement.

This patient was in low general condition from dissipation, insufficient nutrition, and bad hygiene. He was given nutritious diet, with cod liver oil. A course of iodide potassium with biniodide hydrarg., the former to be gradually increased by the addition of a grain at a dose, taken largely diluted with milk, up to sixty grains. Under this treatment and care, with local applications of iodoform in powder to the ulcerations, marked improvement at once took place, and in about two months healing of the open lesions was complete, and the tumors were apparently absorbed.

Remarks on Case VI.—As a rule, to which exceptions are rare, the ulcerative forms of syphilitic sequelæ occur in those cases which have either been imperfectly treated or not treated at all in the early active form of the disease. It is also true that, while the gravest accident *may* occur to those who have had the lightest forms of early manifestations, the destructive sequelæ are *usually* associated with a history of profuse and recurring eruptions in the early stages of the disease. It will be found that whatever the form or locality of the lesion of late syphilis, the ability to assimilate large doses of the iodide of potassium without interfering with the digestion, is a guarantee of rapid benefit from its use. Very great care, then, is necessary to introduce this potent remedy so gradually and so well diluted with milk or some agreeable tonic diluent, that the digestive apparatus may be educated to tolerate the drug. Fortunately, in cases where it is required, iodism rarely occurs in any troublesome degree when sufficient care has been exercised in this respect. The substitution of pure iodine in plain molasses, or with starch, has been previously suggested, when the iodide of potassium is not tolerated.

PSORIASIS OF TONGUE, FOLLOWING SYPHILIS.

CASE. N. M. W.; 30. At 22 had an initial lesion of syphilis, which remained unhealed under local applications up to the fourth month after infection. It was then excised. Healing took place by first intention; several small mucous patches were then present in the mouth and on the tongue; the superficial lymphatic glands were enlarged and indurated at all usual localities. The patient was put upon pil. duplex (hyd. mass. 2 gr., ferri sulph. exsic. 1 gr.) thrice daily, and this was continued, somewhat irregularly—omitting several times for several weeks, whenever some tenderness of the gums appeared—for a year and a half. No intercurrent lesions during this time. Glands still somewhat enlarged; mist. biniodid. hyd. (potas. Iod. 8 grs., hyd. biniodid. $\frac{1}{16}$), a teaspoonful as a rule thrice daily, but not seldom neglecting it, for the following six months, when no further evidences of syphilis having developed—the patient in excellent health—treatment was suspended. Not the least sign of syphilis for the next four years, when slight soreness of the right side of the tongue appeared, chiefly along the edge. This was attributed to the excessive use of cigarettes, to which the patient was addicted. On ceasing this there was immediate improvement in regard to the soreness, but a pale, thin pellicle, appeared in two spots on the tongue, about the size of a split pea, a thin film along the edge, and a patch of the same, as large as a dime, on the inferior surface of the same side, and all within a few days. The patient was put again upon the biniodide mixture, and took it faithfully for several weeks, making applications locally with a saturated solution of nitrate of silver, every day or two, without any very decided benefit. In point of fact, the spots on the tongue became slightly elevated and whiter, apparently from accumulated epithelium, giving the characteristic appearance of a simple psoriasis of the tongue. An application to these spots with Paquelin's gas cautery, the platinum point at a white heat, was carefully made, and the internal treatment continued. The result was an immediate improvement in the appearance of the spots, and after the second application, about a week after the first, the patches were quite freed from the pellicle. The patch under the tongue was then treated in the same manner, carrying the cauterization as far as possible through the thickness of the pellicle, subse-

quently simply brushing the platinum point quickly over the surface. Altogether, half-a-dozen applications were made in the course of four weeks, at the end of which time there was complete disappearance of the pellicle, and scarcely a trace of the lesion remained. The internal treatment was suspended, and at the end of three months, there was no indication of return of trouble.

LESSON XVIII.

Significance of psoriasis of the tongue, following syphilis; often mistaken for mucous patches of the active stage of syphilis, and when occurring after the first or second year, called chronic mucous patches. All lesions of late syphilis, of the same significance, as to their contagious property. All caused by accumulations of so-called gummy material, or non-contagious lymphatic matter. So-called chronic mucous patches of tongue usually caused by use of tobacco. The authority of M. Fournier, favoring the view of their capacity for contagion. Case quoted by him in illustration. Analysis of M. Fournier's case, and arguments to show its failure in proving the inoculability of late chronic lesions of the tongue, and also from Fournier's work and other valued authorities to show, that no form of syphilitic lesion, is contagious after the fourth year. This position supported by the teachings and experience of M. Fournier, in his work on syphilis and marriage. Marriage proper after a certain period. Strong statements of M. Fournier to this effect. Syphilis constitutes only a temporary bar to marriage. Fournier adduces eighty-seven cases in proof of this. Tertiary lesions shown not to be capable of transmitting syphilis. Exceptions claimed, lacking authentic proof. Fournier's case, cited to prove infection from lesions present after three or four years, inadmissible. Analysis of evidence. Case adduced in rebuttal. Case cited to illustrate sources of error. What is needed is a guide, as to time, when syphilitic patient may be considered free from danger of communicating the disease. Facts and arguments to show that this time, is not necessarily more than three or four years. Sources of error in claiming infection beyond this time. Cases in illustration.

Remarks.—The foregoing case would, I think, be best characterized as a psoriasis, induced by tobacco, causing irritation of a surface predisposed to such action, by the previous occurrence of local syphilitic lesions at this vicinity, during the active period of the disease. It has been in my experience to see quite a number of such cases, with or without superficial ulcerative lesions, and which had been classed, by previous medical attendants, as chronic mucous patches, with the distinct understanding that they possessed the power of communicating syphilis. It should be understood that mucous patches, are simply papules, occurring on mucous membrane, and cannot exist as specific lesions after the active stage of syphilis has passed. It may, I think, be safely stated, that, after the third, and at