times lasts for months, but finally the whole cicatrix acquires almost a pearly whiteness. Cicatrices over bone may adhere if they have been connected with bone lesions. The cicatrices left by an ulceration partaking of the nature of both syphilis and scrofula (p. 544) are often complex, that is, a scar irregular, uneven, bridled on its surface, contracted in parts, not much pigmented, perhaps with a vein running across it, and often adherent at points; possessing, in a word, some of the characters of a strumous cicatrix added to those due to syphilis. These complex cicatrices are best marked about the neck, where glands have suppurated on strumous subjects who are also syphilitic, and are not very uncommon after rupia.

Concomitant Symptoms of Secondary Syphilis.—The phenomena which most frequently precede or accompany the first cutaneous out-breaks are syphilitic fever, indolent engorgement of the lymphatic glands, headache, osteocopic pains, alopecia, and sore-throat, with mucous patches, and perhaps iritis. A few words will serve to describe these symptoms. They follow the period of secondary incubation.

SECONDARY INCUBATION.

Primary incubation (as already described, p. 512) extends from the moment of suspicious contact to the appearance of the chancre. Then primary syphilis is ushered in; but now there is another period of rest, wherein the disease seems to be purely local, for there are no general symptoms. This period dates from the appearance of the chancre to the appearance of general symptoms. It invariably exists whether treatment be commenced or not, and has been named the period of secondary incubation. Primary syphilis may, and often does, extend through this whole period, and even longer, but still it is a period of incubation, for the general organism shows no sign of suffering until a lapse usually of many days. The shortest length of period of secondary incubation yet reported is twelve days (Rollet); that is, twelve days elapsed after the appearance of the chancre before any general symptoms became evident. Rollet observed it again of one hundred and thirty days' duration. The mean length of the period is forty-six (Diday) or forty-seven (Rollet) days, as established both by experiment and clinical experience. This period may often be lengthened materially by the intervention of early treatment, but even then it is customary for some slight eruptive disturbance to appear about six weeks after the advent of chancre.

SYPHILITIC FEVER.

About a week or more before the appearance of any eruption, while the chancre is perhaps showing signs of getting well, the patient is liable to exhibit more or less marked symptoms of fever, but, as in nearly all of the symptoms of syphilis, so in this one, the intensity varies in different cases from nothing upward. The poison of syphilis is at work during the period of secondary incubation, and produces more or less cachexia by directly diminishing the quantity of the red corpuscles of the blood. Grassi, the enterprising apothecary of the Hôtel Dieu, by actual count under the microscope found this diminution of the red corpuscles to vary in different cases from eleven to sixty-five per cent., and noted, also, that the percentage of corpuscles increased under the administration of the iodide of potassium. Some diminution of the red corpuscles seems to be constant; but, while it varies greatly in cases where no treatment has been employed, under early judicious treatment the amount of decrease is certainly less. This syphilitic hydræmia, then, is constant, but it may be so slight as not to be accompanied by any observable fever; while, again, the amount of febrile disturbance may be excessive. Hence it sometimes appears that syphilitic fever, as such, is entirely absent. Lancereaux believes that it is present in two-thirds of all cases. When present, as distinct fever, it is marked by physical and mental depression, loss of appetite, functional disturbance of the primæ viæ, and a temperature running up in the evening, according to Guntz,[1] often to 100.04°–101.75° Fahr., coming down in the morning to 99.27° Fahr.

The fever may be continuous, or may occur in paroxysms, chiefly toward night, followed by sweating. The type of the fever may be also remittent, or even occasionally intermittent, with regular tertian paroxysms of chill and fever. Again, the fever may be low and typhoid in type. Sometimes it is accompanied by nausea, hebetude, and stupor; or, again, the patient may feel quite comfortable and as well as usual, retaining his appetite, or even eating more than his ordinary amount of food—boulimia (Fournier). Whether there be much or little true fever, the hydræmia commonly announces itself by sallowness of the complexion, with pallid face, pinched features, and sunken eyes. The nervous depression is sometimes prominent, occasioning melancholy, with sad looks, a gloomy view of life, even to a tendency to suicide. The patient exaggerates his sufferings, and is often wofully depressed, complaining of general *malaise*, fatigue, and feebleness. Paroxysmal, or continued neuralgia, vertigo, feelings of faintness, may come on; these perhaps spontaneous, or, again, provoked by movements of the head. Where the hydræmia is marked, shortness of breath is complained of, and palpitation; a soft, blowing sound may be heard at the base of the heart and in the vessels of the neck. Epistaxis and œdema of the feet, perhaps, occur.

With or without these symptoms of hydræmia, pain is almost constant in syphilitic fever and during the earlier eruptions. This pain usually affects the fibro-osseous system, and is known as osteocopic (*ὀστέον-*

[1] "Das syphilitische Fieber," Leipsic.

κόπτειν, bone-breaking), on account of its peculiar intensity. It assumes a multitude of forms, occurring in the nucha, back, loins, between the ribs, constituting a pleurodynia sometimes mistaken for pleurisy, in the shoulders, elbows, knees, and sternum (Baglivi). These pains are movable sometimes, shifting rapidly from one part to another. They may occur only at night, or may be continuous, in which case they are often decidedly worse at night. Pressure sometimes affords them temporary relief, or, on the other hand, evokes them where they are not spontaneous. A diagnostic value has been attached to the fact that pressure over the lower or upper third of the sternum produces pain not otherwise complained of. Among the pains of early syphilis, headache is prominent, often of an excruciating character and usually worse at night. The joints may stiffen and be hard to move, on account of pain. Effusion occasionally occurs in and around them, giving to syphilitic fever the aspect of mild acute inflammatory rheumatism. Jaundice may perhaps come on during or just before the outbreak of eruption, rarely lasting over a few weeks, and due to hepatic engorgement, or, possibly, as Lancreeaux suggests, to compression of the bile-duct by enlarged lymphatic glands, since this cause is certainly sufficient to produce icterus occasionally in advanced syphilis. The pulse of syphilitic fever rarely reaches higher than 120°. The fever is usually greater according as the eruption is early and abundant. Sometimes it quickly abates and disappears as the eruption comes out, or it may continue and get worse for weeks. Occasionally there are some slight feverish symptoms just before other crops of eruptions which succeed the first general outbreak.

The diagnosis of syphilitic fever is made by a study of the history of the case.

Treatment is mainly tonic and hygienic; these means being persistently pushed while the general treatment of syphilis is kept up. Anodynes are sometimes required to master the pains. Although Grassi found that the number of red blood-corpuscles did not increase under the administration of mercury, yet this remedy, carefully, mildly, but persistently used (never pushed to salivation), usually seems to shorten the attacks, and, if commenced soon after the chancre appears, seems able to prevent the fever altogether.

A few words will suffice for the other ordinary concomitants of the earlier general syphilides, alopecia, general indolent glandular engorgement, sore-throat, iritis, mucous patches, paralysis, anæsthesia, analgesia, boulimia, jaundice.

ALOPECIA.

Falling of the hair due to syphilis is of two kinds. Where there are scabby sores on the scalp, and especially in later ulcerative disease, the hair-follicles, over limited areas, become destroyed, in which case the fallen hair is not reproduced. Ordinarily, however, general baldness

occasioned by syphilis is only temporary. In fact, baldness is not usually produced, but only a considerable thinning of the hair, not only of the scalp, but of the eyebrows, eyelids, whiskers, and, to a degree, of the whole body. This thinning of the hair is due to two causes:

(1.) The syphilitic hydræmia, which, like thin-bloodedness from any other acute cause (fever), temporarily impairs the vitality of the hair-papillæ, causing the hair to lose its lustre and then to fall out.

(2.) A seborrhœa, the sebaceous matter clogging the hair-follicle, pressing upon the papilla, ultimately leading to the fall of the hair, and possibly, in some cases, to the atrophy of the papilla. The dried sebaceous matter mixed with scales may usually be scraped away plentifully from the scalp around the hairs.

Treatment.—Although some falling off of the hair is often inevitable, yet the quantity may be lessened by attention to the hygiene of the scalp, shampooing once a week with a little ammonia in warm water (a teaspoonful to the pint) to get rid of the accumulating sebaceous matter, and the use afterward of a stimulating lotion, of which a little may be rubbed upon the scalp nightly. One of the best of these is:

℞.	Tr. capsici,	ʒ ij.–v.
	Glycerini,	ʒ j.
	Aquæ Cologniensis, ad.	℥ j. M.

Where sores infest the scalp, general treatment alone is to be relied upon.

INDOLENT GLANDULAR ENGORGEMENT.

Coincidently with the first outbreak of general syphilis, sometimes preceding the eruption, more often shortly following it, there is a marked tendency to a general indolent engorgement of the lymphatic glands. This concomitant symptom rarely fails, and it furnishes a diganostic mark of the first importance in all doubtful cases. The enlargement of the glands does not necessarily depend upon the occurrence of an eruption, since it is encountered where close observation fails to detect any neighboring exanthem. This is particularly true of the post-cervical and epitrochlear glands. The engorgement of the glands is indolent, painless. They are usually of a cartilaginous hardness, insensitive to pressure, varying in size from a small pea to a marble.

The coincident indolent engorgement of certain glands is almost pathognomonic of syphilis. These are the post-cervical (posterior chain), markedly two little glands lying high up on either side of the nucha, upon the occipital bone; a gland over the mastoid process of the temporal bone; and the epitrochlear gland (or glands) on either side, just above and without the inner condyle of the humerus. Other glands may also become indolently engorged, but more rarely; as, the lateral or the cervical, the axillary, the inguinal (where the chancre is extra-genital, and where these glands consequently have escaped primary

infection); but the glands of most assistance to diagnosis are undoubtedly the post-cervical and epitrochlear, and these should be sought for in all cases to confirm the diagnosis of general syphilis.

SORE-THROAT.

Sore-throat is a concomitant symptom of all stages of general syphilis. There are three type varieties:

1. A diffuse general redness, with or without ulceration.

2. A certain amount of chronic congestion, and brawny thickening about mucous patches or atonic ulcers.

3. Destructive ulceration from gummy deposit.

The first variety is an early secondary phenomenon, and alone of the three is a concomitant of the early syphilides; the second may occur along with the later secondary and earlier tertiary lesions; the third is tertiary. They will be described in connection with the other symptoms.

Recently Fournier[1] has noted, as a concomitant symptom of the earlier secondary period of syphilis, certain aberrations of cutaneous sensibility, such as loss of ordinary cutaneous sensitiveness (anæsthesia), inability to appreciate the sensations of heat and cold, and complete insensitiveness to pain (analgesia); these either general or more commonly confined to limited areas of skin, notably the extremities. The back of the hand over the wrist is a favorite location. The trouble is a passing one, not lasting more than a few months, and has been observed by Fournier chiefly in women. It is questionable whether hysteria may not often play a prominent part in the causation of these phenomena. Fournier's observations include over a hundred cases.

Iritis concludes the group of concomitant symptoms. It will be described later.

CHAPTER V.

GENERAL TREATMENT OF SYPHILIS.

Hygienic, Tonic, Specific Treatment.—Syphilization.—Treatment of Early Syphilis.—Bad Effects of Mercury.—Methods of administering Mercury.—Treatment of Late Syphilis.—Mixed Treatment.—Treatment by the Iodides.—Methods of administering Iodine in Syphilis.—Quantity of Iodide which may be required.—Duration of General Treatment.

The general[2] treatment of syphilis is hygienic, tonic, and specific. The latter is often ineffective unless aided by the former. Neither should be depended upon alone. They form component parts of one rational system.

[1] "Annales de Dermatologie et de Syphilographie," tome i., 1869, p. 486. "Sur la Syphilis," Paris, 1873.

[2] The local and special means required for the different manifestations of the disease will be detailed under the heads of the symptoms requiring them.

Hygienic Treatment.—The hygienic treatment of syphilis includes all the ordinary laws of health. Regularity of the habits—especially of those of eating and sleeping, and of those involved in the performance of intestinal functions—is all-important. No deviations need be made from ordinary diet. Excesses of any kind are bad, even emotional (fear, anger), and especially excesses in strong drink, in work, in venery. The function of the skin should receive attention through scrupulous cleanliness. Warm baths are more cleanly and relaxing to the skin than cold. If baths be too hot early in the disease, they are apt to call out a more plentiful crop of eruption. Catching cold should be avoided. It is apt to induce and prolong mucous and ulcerative patches about the mouth, nose, and throat. Singing, and loud and continuous talking, are objectionable in subjects having weak throats. Experience has taught that tobacco in all forms, and even highly-seasoned food, is certainly injurious, in irritating and keeping up an outcrop of mucous patches. Air, exercise, and light, essentially necessary to all animal well-being, are particularly so in the case of obstinate chronic or advancing disease. Change of air in some of these cases is essential to the success of treatment, as a trip to the country, change from the seaboard to the mountains, or from inland to the shore, and then perhaps back again, six weeks being usually long enough in any locality to obtain its maximum effect for good.

Case L.—A gentleman of twenty-four, of fair general health, tall, slight, pale, somewhat lymphatic in aspect, applied for treatment of a large lump on the forehead, nasal catarrh, and a yellow ulcer of the soft palate. He had been under treatment for some time for scrofula. Daily local applications had been made to his ulcer. He suffered no pain. His appetite was excellent. The most scrupulous examination and careful inquiry failed to elicit any history of syphilis, except a urethral discharge coming three weeks after exposure, for which he took capsules; and a little sore-throat within six months afterward. He never had been treated by mercury, or otherwise for syphilis, which he was unconscious of having. There was a painful node on the left ulnar, nodes on the tibiæ; the bones of the bridge of the nose crackled when touched, and had already begun to sink in. The fluctuating tumor (gummy) on the forehead was painless. The ulcer of the palate was rapidly perforating, and characteristic in appearance.

He was put on tonics, cod-liver oil, and the iodide of potassium. Five grains of the iodide produced a profuse eruption of purpura of the feet and legs. On this account he went to the country, continuing his iodide, and with directions to increase it. Within twelve hours after reaching the country, his purpura ceased coming out, he was able to increase the dose of the iodide, and all of his symptoms improved. Within a few weeks the ulcer in his mouth healed, the lump on the forehead greatly diminished; he had gained flesh and strength, and concluded to return to the city. Shortly after doing so he was obliged to decrease the dose of the iodide; new crops of purpura appeared daily, his nasal discharge ceased to improve. Again he sought the country, again his purpura promptly ceased, and he went on to recovery.

Many equally instructive illustrative cases might be detailed. The rule is positive. Many obstinate bad cases of late secondary and tertiary disease, which fail to respond to treatment in their homes, especially if that home be in the city, make rapid strides toward recovery, as soon as