CHAPTER XIV.

AFFECTIONS OF THE APPENDAGES OF THE SKIN.

AFFECTIONS OF THE HAIR.

ALOPECIA is one of the most common symptoms of syphilis. It varies from slight to almost complete loss of hair, which is rarely permanent, and its course may be rapid or chronic. It is attended by no subjective symptoms, such as heat or itching, and in most cases there are no marked lesions of the scalp, while in other cases the hair follicles may be involved by macules, papules, pustules, or ulcers. The eyebrows, the beard and moustache, the hair of the pubes and axillæ may also be involved. The eyelashes are seldom attacked, except by ulcerative lesions, and alopecia never exists elsewhere, without affecting the scalp.

There are two varieties of syphilitic alopecia, one consisting of a simple thinning of the hair, and the other of loss of the hair in patches.

On the scalp, the result of alopecia is generally striking, but it may be so slight as to pass unnoticed, the hair merely being thinned. The hair may be lost in one or more patches, which vary in size and occur without symmetry or order; they may be as large as the palm of one's hand, and several may fuse together. Their outline is irregular, and they show no tendency to assume a circular form. The surface of the patches is rather dry and somewhat scaly; the follicles are quite prominent, and scattered irregularly may be a few long hairs, sometimes one or more tufts, and minute hairs. The surface of the scalp is dry, and presents a few furfuraceous scales. In patients who have been subject to seborrhœa capitis, or, as it is generally known, pityriasis capitis, this condition is often much more marked.

The hair follicles may be involved by erythematous spots, papules, or pustules, coincidently with a general eruption. In such cases the loss of hair is generally slight and scattered. The arch of the eyebrows may be interrupted by the fall of a few hairs, or may be totally destroyed, giving the patient a very peculiar appearance. In the beard, in the axillæ, and upon the pubes, the loss of hair may also be partial, complete, or in patches.

Syphilitic alopecia is peculiar to the secondary period, and generally begins about the third month, at the decline of the earlier secondary symptoms. It may occur at any time before the end of the second year, and is very frequently associated with cachexia.

Alopecia is undoubtedly a result of impaired nutrition of the hair follicles, due to the adynamic influence of syphilis. Under the microscope the hair bulb, instead of appearing expanded and rounded, is seen to be wedge-shaped, or otherwise imperfectly formed. It is probable that the papilla no longer nourishes the bulb, which therefore withers and contracts, the hair becoming detached. For a short time the hair may remain in the follicle held by the root-sheath. In this case a new hair will probably grow; but should inflammatory or ulcerative changes occur in the follicles, or when pustules attack the scalp, and sometimes even when erythematous spots and papules occur, the papillæ may be destroyed, and the follicle become obliterated, permanent baldness resulting. This happens in a marked degree in connection with late tubercles and gummatous ulcers.

Diagnosis.—The diagnosis of syphilitic alopecia is to be made from pityriasis capitis (seborrhœa), senile baldness, and alopecia areata. The suddenness of invasion and the generally marked character of the baldness in syphilitic alopecia and its non-inflammatory course are in marked contrast with the chronic course, and the scaly and somewhat pruritic condition of pityriasis capitis. Moreover, the suspicion of syphilis is confirmed by the history of the case and the discovery of other specific lesions.

Senile alopecia, incorrectly so called since it usually begins in middle life, extends backwards from the forehead or begins at the vertex, and is wholly unlike the syphilitic affection. Moreover, the scalp is smooth and shiny, and the follicular openings are no longer visible.

Alopecia areata is much more common in children than in adults, and occurs in round, oval, or serpiginous patches, the hair on other parts of the scalp being preserved. The surfaces of the patches are very smooth and polished, and of a yellowish-white color; they are not scaly, and they are completely destitute of hair.

The prognosis of syphilitic alopecia is in general good. In some cases the loss of hair is so extensive and its renewal so slow that permanent baldness seems to be inevitable. The main points upon which to base the prognosis are the extent of the baldness, its duration, and the patient's general health. If the affection has been severe, and has existed for some time, if treatment has been neglected and incomplete, and if cachexia has taken place, the prognosis must be very guarded.

The treatment of syphilitic alopecia is that of the secondary period. Although we cannot agree with Fournier that the mercurial treatment is the only requisite, we are confident that it should never be neglected; and we believe that local treatment also should be employed. The indications are to apply stimulation with the hope of restoring the healthy condition of the scalp. Frequent shampooing of the head with brisk friction is of much benefit. For this purpose I prefer a simple tincture of German green soap, made as follows:

℞. Saponis Viridis, ℥ij 60
Aquæ Cologn., ℥iv 120
M. Filter.

The scalp having been moistened with warm water, it should be rubbed with a sponge containing ℥ij (8) of this preparation. Care must be taken to completely expose the scalp. After washing and thoroughly drying the hair, the surface should be rubbed with the following:

℞. Tinct. Cantharid., ℥jss 45
Tinct. Capsici, ℥iv 16
Ol. Ricini, ℥jss 45
Alcohol (95), ad ℥viij 250
Perfume, q. s.
M.

This makes an excellent tonic. Some authors recommend a similar compound with spirits of hartshorn added; I never use this ingredient, since it dries the hair and is inferior to green-soap tincture as a detergent. I have also used a solution of quinine as follows, but have never been struck by its efficacy:

℞. Quin. Sulph., ℥j 4
Spir. Myrciæ, ℥iijss 112
Ol. Amygdal. Dulc., ℥iv 16
M. To be shaken before it is rubbed in.

Various essential oils, such as sabine, thyme, cedar, etc., have also been recommended, but the odor is objectionable, and their stimulating properties are not remarkable. The best local treatment is the daily use of the cantharidal tonic, preceding its application every second or third day by friction with the green-soap tincture. In very rebellious cases, in which the patches are large, even greater stimulation may be required, and is best accomplished by blistering with cantharidal collodion, repeated, if necessary, in a week or two, and followed by the milder treatment directed above.

Affections of the Nails.

Syphilitic affections of the nails are of two varieties: in one, called *onychia*, the disease begins in the nails themselves; and in the other, called *perionychia*, it begins in their vicinity and involves them secondarily. Their course is chronic, and may be mild or severe and destructive. They generally appear within the first two years of syphilitic infection, but may be much later.

In syphilitic *onychia* the changes may be dry and confined to the nail-substance, or the nail may be separated from its bed.

In the dry form *onychia sicca*, called by Fournier "friable onychia" (*onyxis craqueté*), the nail gradually loses its lustre and transparency at its free edge and assumes a dull yellow color; sometimes the disease is limited by a distinct line of demarcation, or the whole nail may be involved. The edge of the nail becomes thickened and brittle, readily cracks, and may be deeply serrated. Its surface is rough and presents shallow, longitudinal fissures and minute depressions, which collect the dirt. The epidermis under and beyond the free margin is usually thickened and scaly. Very often there is but slight inconvenience from the disease and the deformity may be remedied by careful paring of the nail. Treatment results in the gradual pushing forward of the diseased portion, leaving a healthy nail. In neglected cases, especially if the parts are irritated, the whole of the affected nail may be lifted off or pushed forwards by a new nail, which may at first be imperfect.

Separation of the nail takes place not infrequently in the early part of the secondary stage of syphilis, and may be partial or complete. The process may be so insidious and it may cause so little inconvenience, especially with careless persons, and when the toe-nails are affected, that several nails may fall without attracting the notice of the patient. It begins at the free border of the nail, being limited at first to a portion of its breadth. It gradually extends towards the base of the nail, involving one-third to one-half its length, and possibly its entire breadth. In neglected cases the whole nail may be affected and thrown off. The diseased portion of the nail assumes a greenish-brown color, and the matrix beneath presents more or less healthy granulations. When the destruction of the nail has been partial, the healthy portion pushes forward and covers the denuded parts; when it has been complete, an entirely new nail is formed. Only one nail may be affected, or several may be involved simultaneously or in succession, those of the hands more frequently than those of the feet.

Fournier describes a *hypertrophic onychia*, in which the thickening of the nail is excessive. It involves the nails of the fingers more frequently than those of the toes, and usually attacks more than one nail. He thinks women are more subject to it than men.

There is also an affection of the nails, of which I have seen but two well-marked instances in men suffering with syphilitic cachexia, which seems to be a *local necrosis*. The nail becomes opaque and whitish, in spots the size of a pin-head. These spots, of which there may be from two or three to ten, are formed by depressions of the surface of the nail which finally reach the matrix, leaving minute and sharply-cut holes.

There are two forms of *perionychia:* an ulcerative and an indolent form, which is usually non-ulcerative.

The *non-ulcerative* form may attack the entire attached margin of the nail, or its lunula, or one of its lateral margins. The border of the nail, to the width of about one line, is thickened in consequence of specific infiltration, and there is a more or less complete papular rim around it. The color is dull red, which pales on pressure, and the surface is slightly scaly. This condition may persist for a long time until the nail becomes of a dull color, and is traversed by shallow transverse furrows, showing impaired nutrition. As a result of

pressure or irritation, ulceration may occur at the angle of reflection of the skin, and may extend beneath the nail, which is finally loosened and thrown off. Sometimes when only a lateral margin is affected, the ulceration reaches but a short distance, and the nail remains and excites a chronic suppurative inflammation, which is cured only after its partial or complete ablation.

The *ulcerative* form of perionychia may occur at any time during the secondary period, and varies greatly in severity. It may begin as a papule or a pustule at some part of the nail margin, or a small ulceration or fissure at the lunula is the change first noticed. In either case the inflammation gradually increases, and ulceration extends along the sulcus at the attached margin of the nail. The process may be limited to the lunula, or to a portion of the nail border, or it may involve the entire length of the sulcus. When the lunula is invaded, the affection is very obstinate; the base of the nail soon loses its transparency, and becomes detached to the extent of about a line. The ulceration which extends under the nail itself, and may be for a time inaccessible, constantly secretes an offensive pus. The whole nail may be gradually undermined, or the parts may be denuded to a limited extent by destruction of the attached margin. Much depends on the early treatment of the ulceration; if it be speedily checked, a new nail forms and covers the diseased parts, pushing the old nail before it.

When the ulceration, which is likely to be particularly intense at the lunula, is severe, the whole matrix becomes involved, and, after the nail has been thrown off, it presents a yellowish, somewhat pultaceous surface, surrounded by the swollen and ulcerated nail margin. Soon the ulceration shows a tendency to localize itself at the basal margin, while the surface of the matrix becomes covered with a dirty yellow, firm, and uneven epithelial tissue. Unless ulceration involves the lateral margins, which it seldom does, a thin spicula of nail forms along the whole length of the sulcus. In such a typical case the whole phalanx is swollen and bulbous, and the matrix is hypertrophied, pulpy, and of a reddish-yellow color. Attempts at formation of a new nail are seen upon the matrix and at its margins. Owing to its dense structure the matrix itself is very resistant, and if left without treatment merely becomes thickened as the ulceration increases.

If the base of the nail has not been too extensively destroyed, it retains a surprising degree of recuperative power. A new nail appears and covers the matrix, unless it be excessively hypertrophied, and may be quite as good as the original nail. In some cases a perfect nail results only after several renewals. It sometimes happens that the nail-producing power of the distal portion of the matrix is impaired, so that the new nail fails to cover as much of the finger as did its predecessor. When this condition coexists with total destruction of the base, the whole matrix is converted into a cicatrix.

When the inflammation attacks the base and one side of the nail

it involves the subjacent matrix, and if its intensity in the latter region equals that at the base, separation of the nail at the side soon takes place, and permits the free application of remedies. Such cases are of much less gravity.

In persons whose hands are exposed to irritants, perionychia may begin under the free edge of the nail, generally of the index or middle finger. Slight pain attracts the attention of the patient, and he finds a brownish-red crust beneath the nail, removal of which exposes an ulcer extending along more or less of the nail's breadth. On removal of the irritation and the use of proper remedies the ulcer soon heals; in case of neglect it extends, and rapidly involves the whole of the matrix, or it creeps slowly along, the nail assuming a dull, yellowish-brown color, the matrix exhibiting a yellow, ulcerated appearance, and the whole phalanx becoming enlarged, until the base of the nail is reached, when a condition similar to that of inflammation of the lunular region is induced.

All forms of syphilitic perionychia are very chronic, rarely lasting less than one or two months, and sometimes continuing a year. At first they may cause scarcely any inconvenience, and for this reason they are often neglected. Pain begins when the inflammation is fully developed, especially if the base of the nail is involved. In severe cases the whole finger and even the hand may be affected by the inflammation; the lymphatics of the arm are very painful, and there is pronounced systemic reaction.

The nails of the fingers and of the toes are attacked with equal frequency, those most used and most exposed being the most liable. In general only one finger is affected, sometimes a finger of each hand, or two fingers of the same hand, either simultaneously or, more commonly, in succession.

Diagnosis.—Chronic eczema and psoriasis of the hand are sometimes followed by changes in the nail similar to those of syphilitic friable onychia. The question may be settled by the previous history of the case.

Ulcerative perionychia has been mistaken for the inital lesion of syphilis.

A chancre of the finger is seldom met with except in the case of midwives and surgeons, and is always accompanied by characteristic enlargement of the epitrochlear or axillary ganglia.

Severe perionychia resembling the syphilitic form is sometimes seen in broken-down and cachectic subjects. Its occurrence should always excite the suspicion of syphilis.

The prognosis of friable and of hypertrophic onychia is good, since they are generally mild and transient. The same is true when separation of the nail occurs, the morbid condition being soon relieved by proper treatment.

The non-ulcerative form of perionychia usually distresses the patient on account of attacking several nails, but it occasions slight inconvenience and is readily cured.

The ulcerative forms are always troublesome and often very painful affections, and the prognosis should always be guarded. The earlier separation of the nail occurs and the focus of disease at the base of the nail is reached by local applications, the sooner may relief be expected. New and comely nails sometimes develop even after prolonged and intense basal ulceration. In nearly all cases where the perionychia is lateral or at the free border of the nail, a perfect nail may be predicted.

The growth of the new nail is very slow, and the spiculæ at the edges and the uneven plates which often form on the surface of the matrix, are important indications of retention of the nail-producing power. The new nail is often imperfect at first, being ridged and irregular, and it is sometimes permanently shorter than the old one.

Treatment.—Internal treatment is required in all forms of syphilitic affections of the nails.

Friable onychia calls for no other local treatment than careful trimming of the nails and prevention of irritation.

In case of separation of the nail, exposure of the matrix and the application every day or two of liquor potassæ, followed by the use of an ointment composed of one part of mercurial and two parts of diachylon ointment, will arrest the disease. The simple form of perionychia may be cured by the use of this ointment.

In ulcerative perionychia the diseased surface should be exposed as soon as possible and cauterized with nitric acid or a strong solution of nitrate of silver, allaying inflammatory reaction with water dressings. Subsequently iodoform or powdered nitrate of lead may be applied, and the phalanx be enveloped in diachylon ointment. The profuse granulations of the matrix may require the use of a strong solution of caustic potassa (ʒj–ʒij or iv). Prolonged immersion of the hand in very warm water containing powdered borax (ʒij–Oj) diminishes the swelling, and removes the secretions. The application of a bandage over the ointment, India-rubber finger stalls or gutta-percha tissue, may be used to reduce the swelling. Care must be taken to apply the pressure gradually.

In addition zinc and belladonna ointments or Goulard's extract may be used to meet special indications. The mixture of diachylon with mercurial ointment is smoother and more efficient than the ordinary mercurial plaster or the *emplastrum de Vigo*.

CHAPTER XV.

GENERAL REMARKS UPON AFFECTIONS OF MUCOUS MEMBRANES.

ATTEMPTS have been made by several authors, and especially by Babington, Ricord,[1] and Baumès,[2] to establish a classification of syphilitic eruptions upon mucous membranes founded upon their initial lesion, as is the case with the syphilodermata. There is no doubt that the manifestations of syphilis upon these two regions exhibit a general correspondence, which in some cases is almost perfect. At the same time, it must in general be confessed that although points of resemblance are often apparent between syphilitic eruptions upon cutaneous and mucous surfaces (which are indeed but one continuous membrane), yet that the physical conditions in which the latter are placed—their constant moisture, exposure to friction, etc.—prevent as accurate a classification as we are able to establish in the former.

One form of eruption at least, the pustular, is never met with upon mucous membranes.

ERYTHEMA.

Erythema of the mucous membranes is usually identical, in the time of its appearance and in its general character, with the same eruption upon the skin. Like the latter, it ordinarily appears six or eight weeks after contagion, and may affect any of the outlets of mucous canals, although it is most frequently seen upon the fauces, pituitary membrane, and genital organs, and in many instances, doubtless, fails to attract attention. It is most frequently seen upon the fauces in persons exposed to sudden changes of temperature, in smokers, and in those who are subject to frequent attacks of catarrh; upon the vulva in women who have frequent sexual intercourse, and upon the glans penis in men with a long prepuce. It may be the only general lesion present, or more frequently it is accompanied by other early manifestations. It may occur in patches like the erythematous syphilide upon the skin, as in a case described and figured by Ricord,[3] of erythema of the glans penis coexisting with roseola upon the trunk, in which the former eruption was arranged in circles of a bright-red color, inclosing sound portions of the mucous membrane, and closely resembling the roseola upon the body. As a general rule, however, especially upon the fauces and vulva, the eruption is diffused and its outline well defined.

[1] Notes to Hunter on Venereal, p. 429 and 447.
[2] Traité des maladies vénériennes, ii., p. 443.
[3] Iconographie, pl. xv.