

consists of a glass tube, about ten inches long, drawn out to a fine nozzle at (*a'*), and cut off with a file at (*a*), the edge being rounded off so as not to cut the cork (*b*), and a slight bulbous expansion at (*c*); cork made to fit (*a*), and holding tight the small glass tube (*e e'*), which passes through it and a metal cup, suspended by two wires about two inches under (*e*). Five or ten grains of calomel are introduced into the glass tube as far as the bulb on the point of a pen, the cork is inserted into the large end of the tube, and the end of the small glass tube is attached to the rubber part of Richardson's spray apparatus. A small piece of rolled-up lint, or a small wire cylinder filled with asbestos and saturated with alcohol, is placed in the cup, and then lighted. While the calomel in the bulb is being sublimed, a gentle current of air is forced through the tube. The result is the deposit of a film of sublimed calomel on the surface of the sore. The nozzle of the tube should be held at a distance of from one to three inches from the skin. The fumigation is easy of application, and painless even on very sensitive parts. It causes no unpleasant results, and is usually not followed by salivation. I regard this as a very efficient therapeutic agent, and have seen excellent results in a number of cases. I recall to mind the case of a boy, the subject of hereditary syphilis, on whose thigh was a large gummatous ulcer, which had resisted all other remedies, and which yielded readily to this form of fumigation, and became healed in less than a month.

Iodoform can also be volatilized in this manner, and is also of benefit in cases of ulcerating syphilides.

CHAPTER XII.

CUTANEOUS HÆMORRHAGE IN SYPHILIS.

ANY of the secondary eruptions of syphilis may be accompanied by hæmorrhagic effusion, either around or into the substance of the lesion. It may occur on the lower extremities of those whose general health is unimpaired, and is then not of serious import; or it may occur on various other portions of the body of broken-down and scorbutic persons. In all of these cases the effusion is secondary to the specific process, spontaneous transudation of blood into the skin of syphilitics being quite a rare occurrence. A case of much interest has been reported by Bälz¹, as follows: a man, aged twenty-five, healthy, but having had typhus fever, when syphilitic one year suddenly and without premonition became covered with a blood-red exanthem. This was composed of discrete and confluent spots, varying in size from a millet-seed to a silver dollar. The blood-red color rapidly faded and left slightly scaly, reddish- and greenish-yellow patches similar to those seen in scorbutus. Coincidentally he had swelling of the joints of the little finger, wrist, right elbow, and both feet, due to intra- and peri-articular hæmorrhagic effusion. The cheeks and eyelids were swollen, but the gums were normal. The urine did not contain blood. Four days later a new eruption occurred simultaneously with an attack of pleuro-pneumonia. For the latter an ice-bag was applied to the chest, resulting in the development of a large patch of effused blood, which slowly subsided, the skin being œdematous and sensitive. A second application of the ice-bag produced a similar result. Under the use of iodide of potash the patient was cured in four weeks. Bälz thinks that syphilis induced in this case a hæmorrhagic diathesis. He also speaks of another case of a healthy man, who, a short time after syphilitic infection, was attacked by a general hæmorrhagic eruption, with epistaxis, bloody urine, bloody stools, and febrile reaction. Several days later a papular syphilide appeared among the patches of effusion, and on the tenth day the man died. Whether this hæmorrhagic condition was a mere coincidence, or was etiologically related to syphilis, it is impossible to say.

I have also seen a case of hæmorrhagic effusion occurring late in syphilis. The patient, a man forty-six years of age, had suffered severely from various lesions, and of late with extensive ulcerating gummata. Twelve years after infection, being in a cachectic state, he was attacked by a general but not copious eruption of bullæ.

¹ Ueber hæmorrhagische Syphilis. Arch. d. Heilk., Feb., 1875.

These when first seen contained sero-pus, but soon became of a deep-red color, and around them a wide areola of effused blood appeared, with large, slightly-raised hæmorrhagic patches between them. The bullæ became large, foul ulcers; the effused patches grew larger, and some coalesced. The patient finally passed into a typhoid condition and died. In this instance the hæmorrhagic condition or diathesis was probably caused by syphilis.

CHAPTER XIII.

CERTAIN SIMPLE CUTANEOUS AFFECTIONS OF THE GENITALS.

UNDER this head are included some of the more common diseases of the skin, and especially those affecting the genital organs, which are sometimes regarded by inexperienced persons as of venereal origin.

ECZEMA OF THE SCROTUM AND PENIS.

The male genitals, especially the scrotum, are frequently the seat of eczema, either limited to these regions, or constituting a part of a general eruption.

This begins as a slight redness of the surface, attended by pruritus. The scrotal surface becomes thickened and œdematous, the normal furrows being much deepened. In most cases the lesion is a dry, scaling eczema, but it is sometimes of the moist variety. The affection is very persistent, and is accompanied by itching and a burning heat, often almost intolerable. The suffering may be increased by the formation of deep fissures. In many cases the lesion spreads to the thighs and perinæum.

When the penis is attacked, its integument becomes much thickened, and phimosis may be produced.

This affection is rarely seen before puberty, occurring usually in young and middle-aged men. Relapses are often observed.

The etiology of this, like other varieties of eczema, is not clear. Probably in many cases local irritation is the starting point of the affection, while in some the rheumatic and gouty diatheses may act as predisposing causes.

Treatment.—The treatment of eczema of the scrotum is often very unsatisfactory. In its early stages, when there is much hyperæmia, the best application is diachylon ointment, to which a little powdered camphor may be added. The inflamed surface should be covered with pieces of lint smeared with the ointment, and the parts be then placed in a suspensory. The acute œdema of the early stage is often benefited by immersion of the parts once or twice daily in very warm bran-water, followed by the application of the ointment. As the case becomes chronic, and the infiltration more dense, some stimulating agent, such as the oil of cade, or the oil of white birch, should be added to the ointment. Half a drachm of the oil may be combined with an ounce of diachylon ointment, and the mixture should be used when fresh, since it readily decomposes. The proportion of the oil may be increased according to the toleration of the parts. It

is rarely necessary to add more than two drachms to each ounce. While treatment is thus followed, the patient should, if possible, avoid active exercise.

In some chronic cases the thickening is so dense, and the pruritus so severe, that more active stimulation is required. We then resort to a strong solution of caustic potassa or soda, in the proportion of from half a drachm to two drachms to the ounce of water. This should be carefully applied with a sponge or pad of flannel for five or ten minutes. Its immediate effect is to produce much redness and swelling, with more or less superficial excoriation. From the excoriated surface small drops of viscid secretion slowly exude for an hour or two. Water-dressing may be needed to control the reaction. Finally the parts may be enveloped in strips of lint smeared with the ointment, which should be renewed twice daily. The re-application of the caustic solutions may be indicated. In occasional instances we have used vesicating collodion, instead of the caustics, with similar results and with decided relief of the intense pruritus.

TINEA CIRCINATA INGUINALIS.

Under the titles, *herpes inguinalis* (Baerensprung) and *eczema marginatum* (Hebra) has been described a form of ring-worm occurring about the genitals, particularly of males, which sometimes resembles eczema.

The eruption begins as a small, round spot on the inside of the thigh, where it is in contact with the scrotum, or upon the pubic region. It is rarely seen by the surgeon in its early stage. If uncomplicated, we find a narrow ring, not very much elevated, often scaly, and composed in part of vesicles. Its color is darker than that of ringworm, as seen on the neck and on other exposed regions. The inclosed area of skin is sometimes almost normal; it may be red and scaly, and the hairs growing from the part are broken and lack their normal lustre, as though their nutrition were impaired. In some cases the hairs seem to be unaffected. The rings formed by the eruption tend to spread down the thighs over the perinæum to the buttocks, and up the hypogastric region to the umbilicus. Not infrequently the affection appears at about the same time in the axillæ, and on other parts, and from there extends in the form of rings.

In the chronic cases, in which a large extent of surface is involved by the eruption, the skin inclosed by the rings undergoes various changes. Sometimes new rings appear within the larger ones, so that we may find the thighs, buttocks, and abdomen covered with large and small circles and segments of circles, or simply by wavy and irregular lines. This condition may continue for months or even years, or the lesion may assume an eczematous character as it extends at the periphery. The affected skin becomes thickened and inflamed, and papules, pustules, and perhaps numerous scales, may form upon it. Owing to greater cleanliness and early treatment we

do not frequently see this aggravated form of ringworm, but in Austria, according to Hebra, it is quite common among shoemakers and cavalymen. English authors state that it is often seen in patients returning from China, India, and other Eastern countries. The course of this affection is quite chronic; while it yields readily in its early stages, it is very rebellious to treatment at a later period, and is prone to recur.

The most reliable remedy is sulphurous acid, which should be thoroughly applied once or twice a day after cleansing the parts with soap and water. In many cases simply painting the affected region with tincture of iodine is sufficient. German authorities speak in high terms of Wilkinson's ointment, which is modified by Hebra as follows:

R. Flor. Sulph.,	
Ol. Fagi, āā ℥iij	90
Cretæ Albæ, ℥ij	60
Saponis Viridis,	
Axungie Porci, āā ℥viiij	240

This ointment should be well rubbed in, and, instead of washing it off, the anointed surface may be dusted with powdered starch. Another ointment we have used with benefit in these cases is made as follows:

R. Hydrarg. Precip. Alb., gr. xlv	3
Potass. Subcarb., ℥iiss	6
Ol. Cadini, ℥iij	12
Ung. Simplicis,	
Ung. Petrolei, āā ℥j	30
M.	

The subcarbonate of potash should be dissolved in a few drops of water and then the other ingredients may be added. When there is much hyperæmia and eczema it is necessary to use soothing and astringent applications to reduce the inflammation, before attacking the parasite which is the cause of the affection. It is important to guard against reinfection, which is liable to occur from spores lodging in the meshes of the under-clothing.

This affection occurs much more frequently in males than in females and is usually observed in young and middle-aged persons. It is caused by the parasite known as the *trichophyton tonsurans*.

SCABIES OF THE GENITAL ORGANS.

Scabies, or itch, may be limited to the genitals, or it may involve these organs at the same time with other regions of the body. It occurs rather more frequently upon the penis than upon the female genitals, and is sometimes very persistent. Upon the mucous more commonly than upon the tegumentary covering of the penis we find slightly elevated papules and moderately distended pustules. Sometimes we also find the marks of scratching and patches of hyperæmia. In some cases very careful examination will reveal

the furrow of the acarus, as a small whitish linear elevation, varying in length from one-eighth to one-half an inch. These furrows or cuniculi definitely prove the presence of the itchmite. They are sometimes, however, not found here as in other localities. In bad cases an eczematous condition of the penis is produced by the excessive irritation.

This affection tends to remain in a chronic condition; papules and pustules succeeding each other and uniting to form patches. In some cases the lesion is conveyed from the hands or other parts by the act of scratching the genitals. The occurrence of a localized eczema of the penis or of the extra-genital region of the female should always excite suspicion. The points of diagnostic significance, therefore, are the irregular mingling upon the penis or mons Veneris, of a number of small papules and pustules, the excessive itching, and perhaps the presence elsewhere of a similar eruption. The discovery of the acarian furrow and of the acarus establishes the diagnosis beyond doubt.

The treatment is very simple. The best application is a salve composed principally of balsam of Peru, as follows:

R. Bals. Perny., ℥ij 8
 Petrolati, ℥j 30
 M.

After immersion of the affected parts in quite hot water containing a little borax, the above ointment should be thoroughly rubbed in and afterwards spread upon lint and applied to the region.

The cause of this affection, as of the itch in other localities, is the insect, the *acarus scabei*.

PHTHEIRIASIS PUBIS.

Phthieriasis, commonly called lousiness, is an affection caused by animal parasites or pediculi, of which there are three varieties: the pediculus capitis, the pediculus corporis, or vestimentorum, and the pediculus pubis. The first two attack the head and body, the third is usually limited to the extra-genital regions, and we shall confine our description to the changes produced by it in these parts.

The pediculus pubis, also called the crab-louse, phthirus inguinalis, phthirus pubis and morpio, is the smallest variety. Its body resembles in shape a shield, being broad, flat, and rounded. Its head is proportionately large, and is somewhat the shape of a fiddle. From each side of the head project stout, five-jointed antennæ, anterior to which are two small eyes. There is no indentation between the thorax and the abdomen. To the former are attached six-jointed hairy legs with strong claws, and along the margin of the abdomen are eight conical feet, from each of which project from four to ten bristles. The insect has a very light-brown color, and is somewhat translucent. The female is larger than the male, and has a triangular indentation at its posterior part.

Although the insect is usually found only in the pubic and femoral regions, it is sometimes transferred by the fingers to the axilla and to the eyebrows and lashes.

The presence of the parasite upon the genitals is made known by an intense pruritus, which is paroxysmal. In many cases the itching is trifling during the day and severe at night. Very often the insects are so few that they may be overlooked, except upon the most careful search. In some cases no visible lesions of the skin are produced. In other cases we may find crusts of dried blood, as small as the head of a pin. These result, not from the bite of the insect, but from the puncture of a sucking apparatus, or haustellum. In addition to these lesions, we sometimes find secondary changes, such as hyperæmia, congestion of the hair follicles and even pustulations. Examination of the hairs shows dirty white particles attached to their shafts, which are the nits or ova of the parasite. Upon separating the hairs small light-brown spots, sometimes mistaken for particles of dirt, may be discovered. On each side of this body, which is the pediculus, may be seen its minute hair-like legs. This feature is diagnostic, and should be looked for in every case of pruritus of the genitals.

TREATMENT.—The treatment of phthieriasis pubis is strictly local and is very efficacious, if carefully applied. Although mercurial ointment is considered a specific by the laity, its use is objectionable on account of the acute and severe dermatitis which it often produces. The most eligible preparation is the following solution, which may be sopped on the parts freely once or twice a day and allowed to dry:

R. Hydrarg. Bichlor. gr. viij 50
 Aquæ Cologn.,
 Aquæ, aa ℥ij 60
 M.

After its use a warm sitz bath is very beneficial. Care should be taken that the underclothing and bed-linen are thoroughly cleansed and pressed with a hot iron. In cases of extreme persistence of the parasites it may be necessary to cut the hair from the pubes. Besides the solution already recommended the tincture of delphinium, or larkspur, is equally efficacious and pleasant to apply.

TINEA OR PITYRIASIS VERSICOLOR.

This parasitic skin-affection is so often mistaken for syphilis, and those affected with it are so frequently subjected to unnecessary mercurial treatment that a description of the lesion seems desirable.

It begins on the chest as small, round, light-yellow spots, which may be slightly or not at all elevated above the surface. These spots may be scaly, or smooth and shining; they seem to be seated around the sebaceous and sweat follicles, and they gradually extend until quite large patches are formed. When the eruption is chronic and very extensive, numerous small patches surround those of larger

size, an appearance which has been compared to a map representing continents and islands. The color varies from a light yellow to a dark brown or even coppery hue. When the circulation is active, or the lesion is irritated by scratching, the patches may become red.

In some cases this affection is limited to the breast, while in others it extends over the entire anterior surface of the trunk, stopping at the neck, perhaps invading the axillæ to some extent and encroaching slightly upon the thighs. It sometimes begins upon the mons Veneris and about the inguinal region, but very rarely extends around to the back. It occurs in both sexes, perhaps with greater frequency in females than in males. It is of common occurrence among those who perspire freely, in weak and debilitated subjects, and especially those suffering from pulmonary troubles. On the other hand, those in robust health are by no means exempt.

The affection is sometimes attended by mild pruritus, or tingling and slight itching may be complained of only when the patient is warm or excited. In very rare cases the pruritus is severe and troublesome.

The disease runs a slow, chronic course, sometimes persisting for years; again it sometimes disappears in winter to return in summer. It is only mildly contagious, cases of undoubted infection from the parasitic fungi being not often seen. Instances have been known in which husbands have had the disease for years without infecting their wives. The affection is perpetuated by the wearing of flannel, which seems to be a nidus for the parasite, and it is particularly persistent in uncleanly persons. Yet in some cases the utmost cleanliness does not prevent a recurrence.

The affection is not seen in very young persons, but in those of adult and middle age. Some authors have claimed that a peculiar state of the system, generally one of debility, is essential to its development. In my opinion free perspiration seems to favor its appearance, which is quite independent of a morbid condition of the system.

Tinea versicolor is a distinctly parasitic affection, being caused by a vegetable parasite, the *microsporon furfur*.

DIAGNOSIS.—This affection is sometimes regarded as an evidence of syphilis or of a disordered condition of the liver. It certainly has no relation whatever to hepatic derangement, and resembles syphilis only in the brown or sometimes coppery color of the patches. The distinction is very readily made. Syphilitic coppery stains are always discrete and not confluent; they are scattered all over the trunk, as well as elsewhere on the body; they are sharply circumscribed, and rarely if ever scaly, are not itchy, and are not effaced by scratching, as is the case with patches of tinea. Finally, the scales of syphilis are simply epithelial, while those of tinea contain the spores of the parasite.

TREATMENT.—The patches should be well scoured with a pad of flannel smeared with soap. Strong solutions of sal soda or borax employed with active friction are of benefit. After a thorough washing, either of the following parasiticide lotions may be applied:—

R. Sodæ Hyposulphitis, ℥ij	12
Aquæ, ℥iv	120
S. To be freely sopped on the parts.	
R. Hydrarg. Bichlor., gr. v	30
Aquæ Cologn., ℥ss	15
Aquæ, ℥ijss	105
M.	

After each application clean underclothing should be put on, and that previously worn must be boiled for a long time, in order to prevent reinfection.

LUPUS ERYTHEMATOSUS OF THE PENIS.

Lupus erythematosus, although occurring most commonly upon the face, occasionally attacks the penis, sometimes being limited to the latter region, and again appearing at the same time on other parts of the body.

The lesion begins as a small, circular, red spot, slightly elevated and covered with a few small adherent scabs. The margin is sometimes raised, while the surface may present numerous little elevations caused by plugging and swelling of the sebaceous follicles. The patch increases in size, healing taking place at its centre, while its border extends. The eruption has a dull red, but not coppery, color, and is seldom attended by any abnormal sensations. Its course is very chronic. In two cases seen by me the lesion began on the outside of the prepuce.

DIAGNOSIS.—This affection may be mistaken for the papular syphilide, in its ringed form, or for psoriasis. The rings of syphilitic papules generally have a coppery red color, are very slightly scaly, and the inclosed area of skin is normal. The patches of psoriasis are usually multiple, are very scaly, and coexist with similar ones elsewhere.

TREATMENT.—The treatment of this affection is not always satisfactory in its results. As an application, mercurial plaster or a dilute mercurial ointment may be tried. Electrolysis may be employed at the advancing border of the patch. In case these methods fail, it may be well to resort to excision of the entire patch, unless too large.