

Pathology. In ringworm of the body the fungus is found chiefly in the horny layer, in the beard and scalp it is found in the scales, hairs and hair follicles, the spores being most numerous in the last named. The fungus is detected by moistening the scales or hairs with liquor potassæ and examining with a lens magnifying 3-400 diameters. It may also be stained according to the following method, suggested by Malcolm Morris: The hairs are washed in ether and then stained in a solution of gentian violet, five per cent. to seventy per cent. alcohol, for one hour. The specimen is then heated over the flame of a spirit lamp for five minutes. The mycelia will then be seen as long, slender, curved or straight, branched threads, the spores as small, round highly-refractive bodies.

Treatment. Tinea corporis is readily cured by removing the horny layer with iodine or some other blistering substance, or with antiparasitics such as sulphur ointment, an ointment of ammoniate of mercury, five per cent., or a solution of bichloride of mercury, three to five grains to an ounce of water. Unna's chrysarobin ointment is very effective. It is composed



Fig. 105.—Epilating Forceps.

of chrysarobin, five parts, acid salicylic, two parts; ichthyol, five parts; simple ointment, one hundred parts. A mild ointment of ammoniate of mercury is preferable for children.

Ringworm of the genito-crural region is usually relieved by painting the surface with a five to ten per cent. solution of pyrogallol or salicylic acid, twenty grains to three ounces of alcohol. Sulphurous acid, oil of cade, bichloride of mercury gr. iij to water ʒj, and tincture of benzoin are among other useful remedies.

Tinea tonsurans is much more difficult to relieve. Epilation should be practiced not only upon the affected hairs but for a distance of a quarter to a half-inch around the patch. This should then be cleared of debris by washing with alcohol or ether and the parasiticide well rubbed in. In its early stages the disease may sometimes be aborted by painting the patch with tincture of iodine, bichloride solution, five to ten grains to the ounce, or salicylic acid, one dram to an ounce of olive oil. Failing in this, a large list of remedies is offered. Sulphur in the form of the officinal ointment may be rubbed into the patch once daily, discontinuing when too much irritation is aroused.

Mercury is serviceable in the form of an ointment of the ammoniate, ʒj ad ʒj; the oleate, gr. x-xx ad ʒj; citrine ointment, full strength, or with equal parts of oxide zinc ointment. Chrysarobin, gr. x-xx to cold cream ʒj, is one of the most effective remedies but must be used with caution. It

should be applied to limited areas and a bathing cap worn to protect the face and eyes from chance irritation. A fifteen per cent. ointment of beta-naphthol is useful, as is also carbolic acid in glycerine, 1:8.

For extensive cases Aldersmith recommends a combination of boric acid ʒiiss, ether ʒij, alcohol Oss. This must not be used near a flame. Coster's paint is of value and is composed of tincture of iodine, ʒij, oil of tar, ʒvj.

The following is given by Stelwagon for dispensary practice:

℞	
Hydrarg. Oleat.,	ʒj-ij.
Acid. Carbolic.,	ʒj.
Adipis,	ʒj.
M. Ft. Ung.	

Crocker recommends the following plan: The patches and neighboring hairs are shaved off and the surface painted with salicylic acid, one part to collodion thirty parts. This is repeated until the disease is destroyed.

It is sometimes desirable to induce irritation in order to destroy the parasites. For that purpose Aldersmith recommends Ol. Tiglii, ʒj, Ung. Sulphuris, ʒj.

Kerion requires sedative and antiseptic applications to be followed by antiparasitics.

The entire scalp should be disinfected in any case with a weak solution of carbolic acid, bichloride of mercury, or a stronger one of boric acid. The head may be advantageously shampooed at frequent intervals with a medicated soap of resorcin, sulphur or hydronaphthol.

Precautions should always be observed against the spread of the disease.

The affection is very obstinate and the treatment must be persisted in with fidelity to insure success.

Ringworm of the beard, when the hair follicles are not involved, should be treated in the same manner as when the disease is located upon the general surface. When the follicles are attacked the hairs must be pulled out and shaving practiced at frequent intervals. The same remedies as are used in ringworm of the scalp are appropriate in tinea barbæ, but in stronger proportions. A lotion of bichloride, one per cent.; sodium hyposulphite solution ʒj ad ʒj; sulphur ointment; ammoniate of mercury ointment, five per cent; chrysarobin ʒj to cold cream ʒj; are among the most useful applications.

The X-rays have been successfully employed. Exposures are given until the hairs fall out and a mild dermatitis is produced.

Ringworm of the nails is treated by scraping the nails and painting with creosote, acetic acid or tincture of iodine. Bichloride, two per cent., may be employed in the form of a finger bath.

Harrison, of Bristol, England, advises a solution of liquor potassæ in

distilled water, of each half an ounce, with half a dram of iodide of potash, and a second solution containing bichloride six grains, alcohol and distilled water, each half an ounce. The nail is first scraped and solution No. 1, applied on lint and allowed to remain under rubber tissue for fifteen minutes; the solution No. 2 is then applied and kept in contact for twenty-four hours. The nail is then scraped and the solutions reapplied.

Prognosis. The prognosis of ringworm of the body is good; genitorural ringworm is at times obstinate and liable to recurrence unless very thoroughly eradicated. Tinea tonsurans requires prolonged and persistent treatment.

Ringworm of the beard is often rebellious but ultimately yields to treatment.

TUBERCULOSIS CUTIS.

Tuberculosis cutis includes all cutaneous lesions occasioned by the tubercle bacillus. According to our present knowledge there are five varieties, *tuberculosis ulcerosa*, *tuberculosis disseminata*, *scrofuloderma*, *tuberculosis verrucosa*, *lupus vulgaris* (q. v.).

Tuberculosis Ulcerosa. This variety is very rare and is characterized by the appearance about the orifices of the body of miliary tubercles which undergo caseous degeneration, break down and ulcerate. The ulcers are painless, non-inflammatory, superficial, rounded or oval and thinly crusted. The crust on removal shows the floor of the ulcer to be uneven and covered with flabby, pale granulations. Coalescence of contiguous lesions may occur. The affection is sluggish in course and shows no tendency to spontaneous healing. The mucous membranes are frequently involved.

This form of tuberculosis cutis is always associated with tuberculosis of the lungs or some other of the internal organs, though not necessarily in an advanced stage, and is due to infection from discharges containing tubercle bacilli passing over the surface. The most frequent seats are the regions of the mouth, genital organs and anus. Miliary tubercles are also found in the mucosa.

Diagnosis. The diagnosis of tuberculosis ulcerosa is easy on account of the co-existence of constitutional tuberculosis.

Treatment. The treatment of the ulcers is that of tuberculosis in general, with the addition of mildly stimulating and cauterant local applications, such as a twenty per cent. solution of chromic acid; carbolic acid or silver nitrate.

Tuberculosis Disseminata. This term includes several forms of lesion known to be due to the tubercle bacillus, such as macules, papules, vesicles and pustules which form irregular, deep ulcers and are usually clearly connected with general tuberculosis and degenerated lymph nodes. Another form presents pale yellow, disseminated papules which undergo ulceration; and another variation occurs as erythematous spots which follow the erup-

tive fevers, especially measles; and are sometimes associated with dull-brown papules or patches, which disappear with or without scarring. All of these forms are rare, usually confined to children and are accompanied by tuberculosis elsewhere.

The diagnosis is established upon the concurrence of tuberculosis of the lungs or other organs and the isolation of the tubercle bacillus from the lesions.

The general treatment is that of constitutional tuberculosis, together with the local use of pyrogallol, mercurial applications, the curette and cautery.

Scrofuloderma. Scrofuloderma is the term applied to sluggish, ulcerative conditions of the skin induced by the presence of the tubercle bacillus and occurring in scrofulous subjects. The affection begins with a caseating



Fig. 106.—Tuberculosis Ulcerosa.

lymphatic gland, or a nodule situated in the subcutaneous tissue and independent of a gland (tuberculous gumma). The skin becomes thin, adherent, bluish and breaks down in places and from the openings a thin, sanious fluid mixed with cheesy particles escapes. The openings are divided by bridges of skin which finally break down and expose to view the tuberculous ulcer. It is irregular, undermined with overhanging livid edges and an uneven floor covered with pale, flabby granulations. A thin crust may form over the ulcer. It is almost painless and heals slowly, leaving puckered scars and small tags of skin, the remains of the ragged edges of the ulcer. Extensive ulceration sometimes occurs and may be very destructive, involving soft parts and bones.

The lymph glands of the neck are the favorite seats of scrofuloderma.

The disease is chronic, indolent and painless. Beginning as a subcutaneous nodule it runs a similar course to that of the lesion springing from a broken-down gland.

A variation from the usual form occurs in the large and small flat pustular scrofuloderms. These lesions do not proceed from a gland or nodule but begin as a small papule which becomes pustular. In the large

flat type the pustule is surrounded by a livid areola and becomes thin and slowly crusted.

The crust conceals a small ulcer of tuberculous appearance which heals slowly leaving a pitted, soft, superficial cicatrix. Several of these lesions may coalesce and show feeble efforts at cicatrization in the ulcerating patch,



Fig. 107.—Tuberculosis Cutis with Bone Involvement (Unna).

resembling in this feature lupus vulgaris but lacking its outlying nodules.

Considerable surfaces may be covered with indolent, painless ulceration. The pustules are of a yellowish or yellowish-brown color, and are seen principally upon the face and extremities.

The small, flat, pustular scrofuloderm described by Duhring begins as a small papulo-pustule which forms a central, hard and horny crust.

This after a time drops off and leaves a punched-out scar like that following small-pox. It is slow and chronic in course, new eruptions appearing from time to time as the older lesions heal. The lesions are seen about the face and extremities in strumous subjects. The affection is probably identical with *acne varioliformis*.

Etiology of Scrofuloderma. Childhood, defective diet and hygiene, the scrofulous habit, are predisposing factors. The tubercle bacillus is the exciting cause.

Treatment. Internally, cod liver oil, syrup of the iodide of iron, syrup of hydriodic acid and the hypophosphites are indicated for their alterative effect.

Locally stimulating applications and surgical measures are required. The X-rays have been successfully used in this condition and good results have been alleged from actinotherapy.

Tuberculosis Verrucosus Cutis (verruca necrogenica, post mortem tubercle). This affection is seen among physicians, dead-house men, meat-dealers and those who are the subjects of constitutional tuberculosis. The affection begins as a flat papule which becomes pustular, dries into a crust and is finally converted into an elevated, red, warty patch situated upon the fingers or hand. A small amount of pus is discharged from between the clusters of the verrucous mass. The growth, or growths, enlarge slowly and are persistent, lasting for years and usually terminating by undergoing involution.

Treatment. The warty growth may be destroyed with caustic potash, salicylic-collodion, or with the dermal curette as in the treatment of ordinary wart.

TYLOSIS.

Synonym. Keratosis palmaris et plantaris.

Definition and Description. Tylosis is a congenital or acquired thickening of the skin of the palms and soles.

The condition appears spontaneously and differs from callosity in being frequently congenital and hereditary. The thickening is symmetrical, the surface, dry, smooth, glistening and yellowish or dull and worm-eaten. It may also occur in the form of irregular bosses or islands upon the points exposed to pressure. When situated upon the feet the horny plates may cause inconvenience in walking from tenderness. Tylosis affects the skin of the palms alone or of both palms and soles. The thickened areas may become detached and fall off, in which case they are always slowly replaced.

The cause of tylosis is not well known. The disease may arise from the long continued administration of arsenic, in which instance it begins as nodular masses which flatten down and form callous plaques. Hyperidrosis is also a cause and when due to this the thickening begins around the mouths of the sweat glands and the skin becomes sodden and softened

as well as thickened. Tylosis is closely allied to callosity, but is classed among the tropho-neuroses.

Treatment. The treatment is that of callosity and consists in exfoliating the horny plates by means of salicylic acid plaster or salicylic-collodion. The condition is very persistent and the results of treatment, unless much perseverance is employed, unsatisfactory.

UNCINARIASIS OF THE SKIN.

Synonyms: Ground Itch, Toe Itch, Dew Poison.

Definition and Description. Ground itch is a cutaneous eruption appearing upon the feet, between the toes, and occasionally upon the hands and other parts of the body as a result of irritation produced by the passage through the skin of the larvæ of the *Uncinaria Americana*.



Fig. 108.—Tylosis Plantaris (Ohmann-Dumesnil).

The eruption begins as a macule or macules which soon become vesicular. The vesicles are ruptured by scratching, leaving a raw, oozing surface which, from infection with pyogenic bacteria, becomes purulent. The lesions are discrete or confluent and are accompanied by intense œdema of the subcutaneous tissues. The subjective symptoms consist in mild pain and for the first few days violent itching.

The duration of the eruption is variable; when discrete it usually heals in about ten days; when infection occurs the duration is from two to six or more weeks.

Geographical Distribution. Ground-itch is found wherever *uncinariasis* prevails. In North and South America and the West Indies it is usually due to the larvæ of the *Uncinaria Americana*; in Southern Europe, Northern Africa and Southern Asia (pana-ghao) it is due to the larvæ of the *Ankylostoma Duodenale*.

Etiology. The eruption is due to irritation produced by the larvæ of the hook-worm passing through the skin. These larvæ are developed from the eggs contained in the fæces of persons affected with uncinariasis. The fæces being deposited on the ground, are washed into the soil by rains, the eggs hatch out and the larvæ are brought in contact with the skin of those who are barefoot or who handle the infected soil. The larvæ vigorously attack the skin and work their way through the pores to the subcutaneous tissues. They are also capable of penetrating wet clothing when it is in close contact with the skin.

As the larvæ are killed by drying and freezing, infection can occur only during wet weather in spring and summer. They make their presence felt within three or four minutes after contact with the infected soil and can penetrate the skin within a very short time thereafter.

The disease may occur at any age and in either sex, but is most common in boys between the ages of three and fifteen. It is less common in



Fig. 109.—*Uncinaria Americana* Larva—three days old (greatly enlarged) (Smith).

girls and rare in adults, though cases are occasionally seen as late as sixty years of age. The disease is more common in white people than in negroes.

Mode of Infection. In the country where the houses are widely separated and shrubbery plentiful the fæces are deposited in situations not very remote from dwellings. In the spring and summer the rains wash the fæces into the soil and the eggs of the uncinaria find conditions favorable for hatching.

If a bare-footed person steps upon the soil containing the larvæ the mud is forced up between the toes to the dorsum of the foot and the larvæ are thus brought into direct contact with the skin where it is thin and easily penetrated. They at once become active and rapidly work their way into the subcutaneous tissue. The affection may also be acquired from the practice among farmers of wearing loose and worn out shoes allowing mud to find its way to the feet.

Symptoms. The eruption is usually confined to the space between the toes and upper surfaces of the feet. The eruption has no tendency to spread, but when infected with pus micro-organisms spreading may be caused by scratching.

When the itching first attracts the patient's attention the surface presents patches of erythema which may be small in dimension or cover a

considerable area, depending upon the number of larvæ which have penetrated the skin. If the larvæ are few in number the patches are sparse, but if the larvæ are very numerous the entire area is hyperæmic. The macules become slightly elevated and in twenty-four hours vesicles are formed. They may be discrete or confluent, depending upon the amount of infection. With the formation of vesicles, there is considerable swelling of the subcutaneous tissues, and intensified redness of the affected area. The swelling reaches its height about the fourth or fifth day and if the inflamed area is not disturbed by scratching the vesicles dry up and crusts are formed. If pus infection occurs the lesions may be weeks in healing.

The chief subjective symptom is itching which is manifested when the larvæ first penetrate the skin. It partially subsides in an hour or two but



Fig. 110.—Uncinariasis Cutis (four days after infection) (C. A. Smith).

returns and is especially severe at night. It steadily increases with augmentation of the swelling and may be accompanied with some elevation of temperature. By the third day the swelling reaches its maximum and appears out of proportion to the extent of the eruption. After four or five days the swelling subsides and the itching diminishes. Despite the swelling, there is but little pain and tenderness.

Treatment. The eruption is rarely seen at its onset and the treatment should be directed principally to the prevention of infection, and when this has occurred to destroy such infection by the local use of germicides. If the eruption can be seen on the first day the application of turpentine, or a combination of camphor and carbolic acid, will effectually penetrate the skin and kill the larvæ. If the area infected can be protected from scratching, healing will occur spontaneously in from ten to twelve days.

URIDROSIS.

Synonym: Sudor Urinus.

Description. This term is applied to the condition characterized by the presence in the sweat of urea and other constituents in unusual quantities. The sweat normally contains a small quantity of urea but it may occasionally be present in renal insufficiency, after taking pilocarpin or in cholera, in sufficient quantities to give a urinous odor to the skin, and also to be deposited in a powder upon it. The treatment of uridrosis is based upon general principles.

URTICARIA.

Synonyms: Nettlerash, Hives.

Definition. Urticaria is an acute, inflammatory affection of the skin characterized by the sudden appearance of pinkish or whitish wheals of short duration and accompanied by stinging, itching and burning.

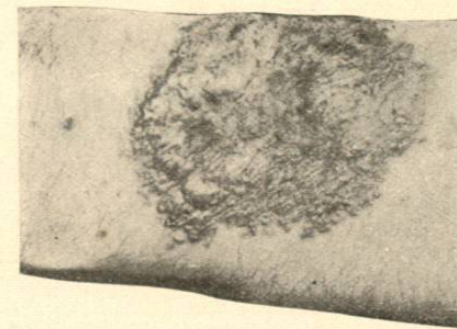


Fig. 111.—Uncinariasis Cutis (five days after infection) (Smith).

Symptoms. The affection begins with a sharp pricking, itching or tingling sensation in some part of the skin and is quickly followed by the appearance of a wheal, elevated, pinkish or white, like that resulting from an insect-bite, or contact with stinging nettle. The lesions come out in crops, unite to form plaques or sheets, raised, flattened, with rounded, pink border and white in the centre, or the lesion may be pink throughout. The wheal or plaque runs a brief course, lasting a few minutes or a few hours, and disappears without leaving a trace except scratch-marks inflicted in the efforts to relieve itching. The outbreak may be general or limited to one region. The mucous membranes, tongue, lips, and respiratory passages may be involved. There is often œdema of lax tissues, especially noticeable about the face and lids. Itching, burning and tingling are marked symptoms. Asthmatic symptoms may be present if the respiratory passages are concerned, or from a general toxæmia.

Urticaria is an acute affection lasting for a few hours to a few days but constant recurrences may continue it for weeks or months until it assumes a state of chronicity.

Variations occur in the usual appearance of an urticarial eruption. The exudation of serum may be sufficient to raise the epidermis in pemphigoid blebs (*urticaria bullosa*), or the bleb may be tinged with blood (*urticaria hemorrhagica*). Papular urticaria is a variety which occurs chiefly in neurotic children as small œdematous papules attended with great itching. The tops of the papules are torn off by scratching leaving a small hemorrhagic crust. The affection may suggest scabies as the itching reaches its maximum intensity at night when the clothing is removed, but it does not show the same areas of distribution as itch and close observation will discover the primary lesion to be a wheal. It is a rebellious complaint and may last for years. It is also known as *lichen urticans*.

Urticaria Tuberosa (giant urticaria, acute circumscribed or angio-neurotic œdema, Quincke's disease). This form of urticaria is more common in adults, especially those who are stout, gouty, rheumatic or who indulge habitually in alcohol. The wheals are larger, reaching the size of a walnut or an egg. The face and extremities are the usual seats of the eruption. In the former locality the lip swells suddenly and becomes protuberant, hard and waxy, reddened or blanched, and remains in this condition for minutes or hours. The mucous membranes and the air passages may be affected and suffocative symptoms are sometimes produced. The swellings as a rule are ephemeral and their appearances and disappearances resemble the vulgar type of urticaria.

Dermographism (urticaria factitia) is a term applied to the peculiar reaction of the skin to irritants wherein the formation of wheal-like lesions follows the seat and course of the offending body. Letters and figures may be traced on the skin and will in a few moments appear in high relief and remain visible for a considerable length of time.

Urticaria perstans refers to the persistence of the individual lesions.

Urticaria maculosa refers to the condition in which the wheal remains pink throughout instead of showing a white, central portion before disappearing.

Etiology of Urticaria. The causes of urticaria are manifold. Idiosyncrasies are responsible for many cases. The majority arise from digestive disorders (*urticaria ab ingestis*). Shellfish, strawberries, pork, pickles, and a long list of other foods may produce irritation in a susceptible individual and provoke an attack of urticaria. Many drugs have the same effect, notably, the balsams, salicylates, opium and quinine. Uterine disorders, constipation, intestinal worms, rheumatism, alcoholic indulgence and nervous affections are contributing factors in the causation of urticaria, acute and chronic. External agents such as the dye-stuffs, irritant plants, bites of insects, contact with certain varieties of caterpillars, may also produce urticarial eruptions. This type of lesion is often associated with other eruptions as dermatitis herpetiformis and scabies.

Diagnosis. The diagnosis of urticaria is based upon the recognition

or clear history of an ephemeral lesion, the wheal. It is of more diagnostic importance to determine to what cause the wheals are due.

Pathology. The wheal is the result of vaso-motor disturbance which causes transient vascular spasm, with consequent dilatation of the vessels of the corium with the exudation of serum and some leucocytes. This exudation produces œdema with pressure upon the blood vessels, the compression being greater at the centre of the lesion causes this area to become blanched. The histological appearance is that of an inflammation.

Treatment. In acute cases an emetic or a brisk purge is indicated to remove the offending material in the stomach and intestines. Following this phosphate of soda, bicarbonate of soda, ichthyol in five drop doses, or five grains of phenacetine, or salol three times a day, are among the remedies likely to afford relief. In the more chronic cases diligent search should be made for the cause of the continuance of the eruption. The diet should be carefully arranged and the patient brought into as good a general condition as is practicable.

In the protracted cases the following remedies may be given: Antipyrine, bromide of potash, ichthyol, atropin, pilocarpin, quinine and arsenic.

Locally alkaline baths; rubbing with dry salt; lotions of carbolic acid; equal parts of vinegar and water; weak tar or bichloride solutions; calamine and zinc oxide lotion; dusting powders containing camphor; are serviceable for the relief of itching.

Prognosis. Acute cases usually recover in a few hours to a few days. Chronic urticaria is frequently rebellious to treatment and its cure will depend very largely upon the discovery and removal of the cause.

URTICARIA PIGMENTOSA.

Synonym: Xanthalasmodea.

Definition. Urticaria pigmentosa is an inflammatory affection of the skin characterized by disseminated, yellowish, symmetrical, wheal-like lesions, beginning in infancy and accompanied by more or less itching. The eruption may appear shortly after birth, or as late as the third year of life. It is most abundant about the neck and shoulders, where it originates, and spreads to the rest of the body affecting at times the mucous membranes as well as the skin. The lesions are pink or buff-colored, pea- to finger-nail-sized nodules or wheals surrounded by a pink zone. The skin covering them is granular or wrinkled. The lesions tend to remain stationary and ultimately undergo involution, leaving a greenish, yellowish or brownish stain. The eruption is apt to recur upon the seats of former eruption. Itching may be slight or very severe.

Urticaria pigmentosum is very rare and, according to some writers, belongs in the class of neoplasmata with urticaria superadded.

Diagnosis. Urticaria pigmentosum differs from *xanthoma* by its occurrence in infancy and in the relative instability of the lesions; from *urticaria*

in the persistence of individual lesions, yellow color, symmetrical distribution and lack of tenseness in the skin covering the lesions.

Pathology. The nodules are largely composed of Ehrlich's 'mast' cells with œdema and pigment deposit.

Treatment. Treatment is ineffectual. The remedies used in simple urticaria may be given a trial.

Prognosis. Urticaria pigmentosa almost invariably disappears between puberty and adolescence.



Fig. 112.—Generalized Vaccinia (Unna).

VACCINATION ERUPTIONS.

Certain skin lesions follow vaccination at times and they are divided into those which originate at the site of inoculation and those due to the absorption of the vaccine virus. The following belong to the former class: *ulcer*; *dermatitis* which at times resembles erysipelas and is rarely petechial and gangrenous; *abscess*; *furunculosis*; *erysipelas*; *septic infection*.

The pus from the vaccine sore may be conveyed by auto-inoculation to other parts of the body and occasion an outbreak of *impetigo contagiosa*.

Both erysipelas and contagious impetigo may be invaccinated and appear three or four days after vaccination.

The point of inoculation may be the seat of an infective granuloma, the "raspberry excrescence", which begins a few days after vaccination, is persistent and prevents the conference of immunity.

Generalized eruptions may appear from the second to the tenth day, and later, and consist of *urticarial lesions*, a *dusky-brown morbilliform rash*, or an *erythema* beginning on or about the tenth day in large patches upon the arms and spreading to the body, accompanied by some febrile movement and lasting for a few hours, to disappear without leaving any trace. This is the *roseola vaccina* of Hebra.

Eruptions of a pustular, papular or vesicular character may also follow in the wake of vaccination; and occasionally *erythema multiforme*, *purpura*, and a *bullous, pemphigoid eruption* are encountered.

Generalized vaccinia is rare and probably the result of auto-inoculation.

As a rare sequel of vaccination may be mentioned *eczema*, *psoriasis*, *dermatitis herpetiformis*, *invaccinated syphilis*, *tuberculosis* or *leprosy*.

Diagnosis. As there is nothing distinctive about the post-vaccination dermatoses, the diagnosis must be made on the history of recent vaccination.

Treatment. Treatment is based upon general principles and upon that of the special type of eruption present. Prevention consists in the employment of surgical cleanliness and glycerinated lymph.

VARICELLA.

Synonym: Chicken-Pox.

Definition and Description. Varicella is a contagious eruptive disease of a mild character and common in children. The period of incubation is about two weeks.

The eruption of varicella appears about the face, scalp, back and shoulders as a slightly-raised, red spot which rapidly becomes vesicular. The vesicles are long, plump and contain a clear fluid. They present somewhat the appearance of drops of water clinging to the skin. The lesions are easily broken, but if undisturbed tend to flatten in the centre and finally dry into a crust. The contents of the vesicle may become pustular, when it is liable to cause a superficial tissue necrosis and be followed by scarring.

The eruption comes out in crops, one drying as the other appears.

Diagnosis. From *variola*, varicella is diagnosed by its lack of shotty papules, much less pustulation, and the constitutional symptoms are much milder. The *pustular syphilide* is slower in evolution and occurs in debilitated subjects along with other manifestations of syphilis.

VARIOLA.

Synonym: Small-Pox.

Definition and Description. Small-pox is an acute, contagious, eruptive disease with a period of incubation of about two weeks. The eruption usually appears upon the third day, sometimes as late as the fifth. There

is usually a precursory roseola before the appearance of the characteristic eruption. The latter manifests itself about the forehead, at the hair line, then on the wrists, finally spreading to other regions of the body. The lesions are shotty, deep-seated, red papules. In one or two days vesicles form at the summit of the papules, and in four or five days these become



Fig. 113.—Variola (Ohmann-Dumesnil).

pustular and are surrounded by an inflammatory areola. The pustules flatten in the centre—umbilicate. They are discrete or, in severe cases, confluent. On about the ninth day the pustules dry or rupture and form crusts which drop off, leaving pigmentation or a variable amount of pitting. Fever accompanies the invasion and stage of pustulation. The mucous membranes may participate in the distribution of the eruption.

Diagnosis. Mild small-pox may resemble *acne* but lacks comedones and

its course and history are quite distinct. *Pustular syphilis* is much more leisurely in course, usually afebrile, accompanies other manifestations of syphilis and the lesions are rarely umbilicated. *Varicella* lacks shotty papules, usually occurs in children and is a much milder affection.

VERRUCA.

Synonym: Wart.

Definition. Verruca is a small, papillary elevation, pin-head to bean-sized, due to epithelial and connective tissue overgrowth.

Varieties. *Verruca vulgaris.* This is the variety of wart commonly seen upon the back of the hands in children and young people. There may be one or many. The lesion is from the size of a pin-head to that of a pea, sessile, rounded, or flattened, hard, the surface granular, lobulated or smooth, of a normal color in the smaller lesions, yellowish or dark in the larger. Sometimes the wart is compressed and springs from within a ring of thickened epidermis.

Verruca Plana. This variety is seen on the face and forehead of young people. The lesions are usually numerous, small, flat and of a normal color.

Larger, flat, dark, slightly elevated warts occur on the face and hands of old people (*verruca senilis*, *keratosis senilis*) and may become the seat of malignant changes.

Verruca Filiformis. This form is a thread-like wart one-fourth to one-eighth inch in length and is seen about the lids, face and neck. They are frequently numerous in the last-named locality.

Verruca Digitata. This variety of wart occurs principally on the scalp and presents lesions with separate, branched, finger-like prolongations. They are flattened, soft and highly vascular.

Verruca Acuminata (venereal vegetation, pointed condyloma). This type of wart is found about the penis, labia, anus and scrotum of young adults. The growths when recent are pinkish or red, having a broad or narrow base and occur in clusters of papillary prolongations which are rounded or acuminate. The growths may be single or multiple. Owing to their position and being subjected to warmth, moisture and pressure, they soften and secrete an offensive fluid. They grow rapidly in one or two separate prolongations or in large clusters, vegetating and resembling a cock's comb, a raspberry or a cauliflower. After a time, on an exposed surface, as the bare glans penis, they become hard, dry and dense.

Etiology of Warts. The cause of verruca is not definitely known. It is believed that warts are contagious. The acuminate wart is due to gonorrhœal or other irritating discharge and is seen chiefly among those who give a history of venereal disease.

The common wart is an affection of childhood.

Pathology. The wart is composed of hypertrophied epidermal elements and papillæ. Unna distinguishes between common and acuminate warts in that the former is an infectious, acquired acanthoma on which hyperkera-

tosis immediately supervenes, while the latter is a pure acanthoma appearing isolated around mucous openings and on seborrhœic and moist areas of skin and tending to extend superficially. The digitate and filiform warts are included (Crocker).

Treatment. The treatment of warts consists in the removal of the growth by excision, electrolysis or caustics. The growth may be dissolved by boring into it with a tooth-pick dipped in fluid caustic potash. Excision under cocaine anæsthesia may be employed if the warts are large and numerous, or they may be scraped away with a sharp curette. Electrolysis is effective but slow. It is carried out in the same manner as described under nævus.

Digitate warts of the scalp and filiform warts of the face and neck should be removed with scissors and the base cauterized with the acid nitrate of mercury.

Flat, multiple warts of the forehead may be destroyed by painting with salicylic acid-collodion, or the following may be applied:

R		
	Sulphur,	5v.
	Glycerin.,	
	Glacial Acetic Acid,	āā ʒiiss.

Dilute acetic acid may be applied several times a day until the wart shrivels and drops off.

Acuminate warts must be kept clean and dry and powdered with calomel several times a day. Painting the lesions with liquor plumbi subacetatis; tincture of iron; chromic or glacial acetic acid, may cause them to disappear. If these fail, excision should be practiced.

Warts may also be removed by sparking with the high frequency electrode, but the method is quite painful and not superior to others mentioned.

Internal treatment is claimed to have an influence upon warts. Sulphate of magnesia may be given in dram doses three times a day for some weeks. Nitro-hydrochloric acid and *thuja occidentalis* have also been recommended.

Warts not infrequently suddenly and spontaneously disappear.

XANTHOMA.

Synonyms: Vitiligoidea, Xanthasma.

Definition. Xanthoma is a connective tissue new-growth, presenting chamois skin or yellowish, variously sized and shaped, irregular, flat tubercles or patches.

Varieties. Xanthoma occurs in several varieties.

Xanthoma palpebrarum vel planum is the form most frequently encountered and occurs in buff-colored spots, or small, flat patches without

infiltration, situated about the inner canthus of the upper lid. The lesions are at first discrete and finally coalesce. Both lids may be involved ultimately, the upper and lower simultaneously, and are often encircled, as if a strip of chamois skin were let into the skin. The lesions are soft, the skin covering them of a normal pliancy and not scaly.

Xanthoma tuberosum occurs on the neck, trunk and extremities. The lesions are millet-seed to pea-sized or larger, nodular, soft, raised and



Fig. 114.—Xanthoma (Unna).

yellowish. They may attain the size of a hen's egg and when in this condition are usually tender and situated upon an inflamed base. Irregularly outlined patches may be formed out of small lesions uniting. They may be few and scattered or numerous.

Xanthoma multiplex combines both the flat and tuberoso forms. It begins about the eyelids and extends to other regions, favoring extension to the lower extremities. The lesions are often arranged in a linear fashion.