

abrupt, as well authenticated instances of sudden whitening of the hair under the influence of powerful mental or nervous stress are given. The loss of pigment may occur in localized areas, when it is usually due to neuralgia, leucoderma or traumatism, other pilous portions besides the scalp and face being involved. The loss of pigment appears in no wise to compromise the growth or vigor of the hair.

Treatment. Dyeing the hair with solutions of nitrate of silver or lead is resorted to by some, but it is not to be recommended on any but doubtful cosmetic grounds.

CANCER. CARCINOMA CUTIS.

Varieties. The most frequent type of cancer of the skin is epithelioma, and will be described under that title. Other varieties originating in the skin or secondarily developing from growths elsewhere are two, the lenticular and the tuberosum. The pigmented or melanotic is now classed with the sarcomata.

Carcinoma lenticulare is the commonest of the scirrhus or fibrous cutaneous cancers. It is characterized by the presence in and upon the skin of smooth, flattened, glistening papules, at first shot-sized, later enlarging. They become disseminated, coalesce, and the skin involved takes on a smooth, shining appearance, and is much indurated. The lymphatic vessels and glands are involved, and the neighboring limb becomes swollen, œdematous and painful. Pain is present to a greater or less extent throughout the course of the disease.

The affection progresses gradually. The papules eventually disintegrate, ulcerate, fungate, and the patient dies from exhaustion or extension of the disease to some important organ. When the skin of the thorax or abdomen becomes so extensively infiltrated as to lose its elasticity and embarrass respiratory movements, the condition is termed cancer *en cuirasse*.

Carcinoma tuberosum. This variety is much rarer than the foregoing, and the nodules are larger. It occurs as hard, round and oval lumps from the size of a filbert to that of a hen's egg. These are situated at first in the deeper portions of the skin but, as they enlarge, approach the surface. The over-lying skin becomes dusky-red or violaceous, breaks down and ulcerates, when the typical appearance of carcinoma is manifested and death sooner or later follows.

Treatment. When practicable the growths should be removed surgically. Failing in this, unless something can be accomplished with the newer physical agents, the X-rays and radium, the treatment is without avail.

CARBUNCULUS.

Definition and Description: Carbuncle is a deep-seated, phlegmonous inflammation of the skin, accompanied by numerous necrotic foci with

sloughing of the tissues involved. It occurs in middle-aged and elderly people as a rule, and is more common in men than in women. It is usually single, but when several occur they are apt to be separated from each other by more or less wide intervals.

Etiology. Debility and diabetes are the most frequent general causes, though carbuncle is not uncommon in those in apparently robust health. The exciting cause is the *staphylococcus pyogenes aureus*.

The seats of predilection of carbuncle are the nape of the neck, face, scalp, upper part of the back, the buttock and thigh.

Symptoms. Carbuncle begins with a flat, more or less circumscribed, dusky-red, painful infiltration in the skin. The area involved measures from two to eight inches in diameter and is of a board-like hardness. The circumjacent skin is red and œdematous. In seven or eight days numerous points of suppuration make their appearance upon the area of infiltration,



Fig. 16.—Carcinoma Tuberosum (W. P. Nicolson).

which in a week more begins to slough and expose dirty, yellowish masses of necrotic tissue accompanied by an ichorous discharge mixed with shreds of tissue. The skin lying between these cribriform openings may become sphacelated and melt away. The slough finally loosens, leaving exposed a deep, irregular ulcer which gradually fills up with granulations and heals with a drawn, irregular scar.

The constitutional symptoms of carbuncle appear early in the course of the disease and are those of toxic absorption, malaise, chill, fever and prostration. In diabetic, feeble, old and infirm people with weakened powers of resistance, septicæmia developing may produce fatal termination.

Pathology. The process begins in the sweat or sebaceous glands, or at the root of a hair. There are numerous inflammatory centres which act independently, up to a certain point, when they fuse together. Gangrene takes place from thrombosis of the vessels.

Diagnosis. Carbuncle has some resemblance to furuncle and anthrax,

but with the former only in the early stages before the sieve-like characteristic openings have been manifested. Carbuncle is flatter than furuncle, single, and the constitutional symptoms are more severe. Its points of differentiation from anthrax have already been brought out in connection with that disease.

Treatment. If detected early an effort may be made to abort the carbuncle by the injection of carbolic acid, either pure or of twelve and one-half per cent. strength in glycerine. The injections should be made with a hypodermic needle at several points, and deep in the infiltrated area. This should be followed by hot boric acid or bichloride fomentations. Ichthyol pure, or in twenty-five to fifty per cent. strength in lanolin or glycerine, may be kept in constant contact with the lesion.



Fig. 17.—Carbuncle.

Surgical measures should be adopted when the constitutional symptoms warrant them. Under a general anæsthetic the whole of the infected area is removed with a circular incision and dissection. The crucial incision is serviceable only in the mildest types of the disease, for by this method all of the suppurating foci are not reached. When sloughing has occurred, the gangrenous tissue should be clipped away with scissors, the base of the ulcer cleansed with peroxide of hydrogen and antiseptic dressings applied.

The general treatment consists in the administration of stimulating and supporting remedies and forced nutrition. Large doses of tincture of chloride of iron, tincture of nuxvomica, quinine and alcohol freely assist in the management of the case.

Prognosis. Recovery from carbuncle is the rule, though when the resistance of the patient has been lowered by concurrent disease death is not infrequent.

CHLOASMA.

Synonyms: Liver Spots, Moth Spots.

Definition and Description. Chloasma is an excess pigmentation occurring in irregularly-shaped patches or sheets of a brownish or yellowish-brown color. The affection appears idiopathically after long continued

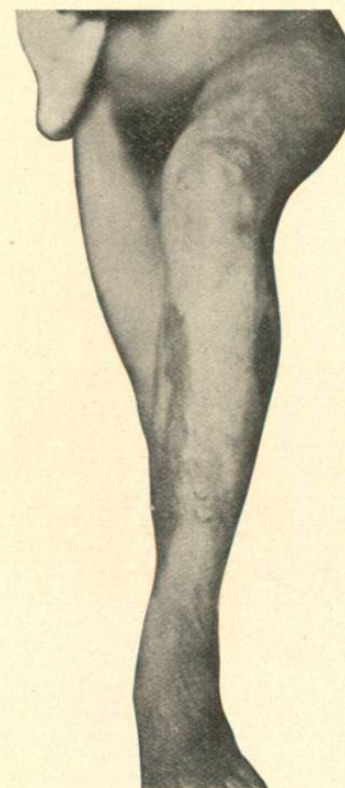


Fig. 18.—Chloasma with Varix.

exposure to the sun's rays, or from friction or pressure, or it may follow as a symptom of certain disorders of the liver, spleen, adrenal bodies, uterus and its appendages. It is consecutive to a number of cutaneous affections such as leprosy, syphilis or eczema of long standing. Malaria, tuberculosis and cancer produce a cachectic chloasma.

Varieties. The form of chloasma commonly observed is that termed *chloasma uterinum* and is associated with utero-ovarian disease or pregnancy (*chloasma gravidarum*). It occurs in both single and married women but never after the menopause and is seen chiefly upon the face,

especially the forehead, and may extend from the hair-line to the brows. The cheek and lip are often concerned and the discoloration may cover the whole face like a mask. It also appears on the neck, and may be found in scattered patches over the body, particularly along the middle line, about the mammary areola and vulva.

Discoloration of the skin is produced by certain drugs, especially nitrate of silver and arsenic. Under the long continued use of the former, the skin assumes a bluish or bluish-gray, leaden or slate color from the deposit of metallic silver. The condition is known as *argyria* and was formerly much more frequently seen than at present when the treatment of epilepsy with nitrate of silver, once so popular, has fallen into disuse. The discoloration is ineradicable. Arsenic may produce a brown or bronze pigmentation which slowly disappears after the discontinuance of the drug.

Diagnosis. Chloasma resembles *tinea versicolor*, one of the parasitic diseases of the skin, but differs from it in affecting the exposed parts of the body, lacking furfuraceous scaling and not disappearing on pressure. (The last named is a sign which is common to all genuine hyper-pigmentations of the skin.) If doubt exists recourse may be had to the microscope.

Pathology. The granules of pigment lie principally in the lower strata of the prickle cells of the *rete mucosum*.

Treatment. The treatment of chloasma consists in first removing the cause of it, if this can be ascertained.

Locally, applications which cause desquamation or vesication of the discolored skin are to be used. Vesicants should be employed with caution lest the pigment be actually reinforced by the irritation accompanying its removal. The following lotion is much used:

℞
Hydrarg. Bichlorid., gr. x.
Tinct. Benzoin.,
Hydrogen. Peroxid., āā ʒj.
Emuls. Amygdal. ad, ʒvj.
M. Sig. Apply to patches several times daily.

Bulkley recommends:

℞
Hydrarg. Bichlorid., gr. vj.
Acid. Acetic Dilut., ʒij.
Sodii Biborat., gr. xl.
Aquæ Rosæ ad, ʒiv.
M. This is to be brushed into the affected parts until they become too sealy, then cold cream is to be applied.

Either of the following ointments may be tried:

℞
Kaolin, ʒj.
Magnes. Carbonat.,
Zinc. Oxid., āā ʒss.
Glycerin, ʒj.
Vaselin, ʒss.
M. et ft. unguent. Sig. For local use.

Or:

℞
Acid-Salicyl., gr. xx.
Ung. Hydrarg. Nitratis, ʒiij.
Ung. Zinc. Oxid. ad, ʒj.
M. et ft. ung. Sig. Spread on a piece of lint and apply to the patch.

Leloir recommends the following procedure: Cleanse the part first with alcohol, then paint over it several layers of a fifteen per cent. solution of chrysarobin in chloroform, then cover with a layer of traumaticin. When the layers begin to loosen and peel they are removed.

Electrolysis may be successfully employed in small patches, using a very fine needle and passing it horizontally just beneath the epidermis.

Prognosis. The prognosis of all types of chloasma is uncertain. If due to some internal cause which can be removed, the discoloration gradually clears up.

When the treatment is entirely local, the prospect of ultimate removal of the disfigurement is far from flattering.

CHROMIDROSIS.

Synonym: Colored Sweat.

Definition and Description. Chromidrosis is a disorder of the sweat secretion manifested by a bluish or bluish-black discoloration of the fluid. It is very rare and is, as a rule, limited to the face, though it may occur elsewhere. The color is usually sepia black, or black with a bluish tinge. It appears rapidly or gradually and is accompanied by a deposit on the skin of a granular, powdery substance. Hyperidrosis coexists.

The character of the coloring matter secreted by the sweat has not been ascertained, but has been variously ascribed to indican, a micro-organism, phosphate of iron, compounds of cyanogen.

The sweat may be colored green from the presence of copper in the system, or red, or yellow from a growth of parasites upon the hairs, especially those of the axilla.

Etiology. The affection is probably a neurosis aggravated by uterine

disorders and chronic constipation. Two-thirds of the cases have, according to Crocker, occurred in young, unmarried women of highly nervous organization. Some writers are inclined to regard the affection as an imposture, but there seems to be no doubt as to the reality of its occurrence.

Treatment. The treatment of chromidrosis is directed at the removal of any disturbance of the general health, especial attention being given in the relief of constipation.

Locally, astringent and stimulating applications may be employed. Van Harlingen recommends the following:

| | | |
|----|-------------------|---------|
| R̄ | | |
| | Acid Boric, | gr. x. |
| | Acid. Salicyl., | gr. xv. |
| | Ung. Aq. Rosæ ad, | ʒj. |
| | M. et ft. ungu. | |

Prognosis. The outcome of the disease is good, the patient ultimately recovering. The duration depends upon the cause and its removability.

CHROMOPHYTOSIS.

Synonyms: Tinea Versicolor, Pityriasis Versicolor.

Definition. Chromophytosis is a disease characterized by finely scaling, yellowish or yellow-brown patches or sheets occurring chiefly on the trunk, and due to the presence of a vegetable parasite, the *microsporon furfur*.

Symptoms. The affection begins with macules, the size of a pin-head or larger, which gradually extend, unite with other macules and form patches. The color varies from a brownish-yellow to a light-fawn, even pink. The surface of the patch is covered with very fine scales, which may be scraped off with the finger nail. Slight itching, especially in warm weather, is usually complained of, though it may be absent. The sternal and interseapular regions are the usual locations. If the disease has existed for a long time without treatment it may spread over the whole front of the trunk, extending from the clavicles to the pubes in a continuous sheet, and on the back in large patches with smaller satellites, the "bathing suit" area. The face and extremities generally escape.

The affection is chronic, and, if undisturbed, will exist for years.

Etiology and Pathology. The *microsporon furfur*, a fungus of the mushroom type, is the cause of the disease. It invades the horny layer and grows luxuriantly. The spores of the mycelium are highly refractive, and show a marked tendency to grouping. The affection is confined to adults, and is but slightly contagious.

Diagnosis. The diagnosis is usually easy, and rests mainly upon the

location and furfuraceous scaling. It may be definitely established by microscopic discovery of the fungus in scrapings from the patches.

Treatment. The treatment is rapidly effective, but must be thorough, else relapses will occur. The patches are scrubbed with tincture of green soap, which is then washed off and a saturated solution of hyposulphite of soda applied. This usually suffices to relieve the trouble in a few applications. Other remedies are equally serviceable. Ammoniate of mercury, ten grains to a half-dram to the ounce of cold cream; resorcin ten to

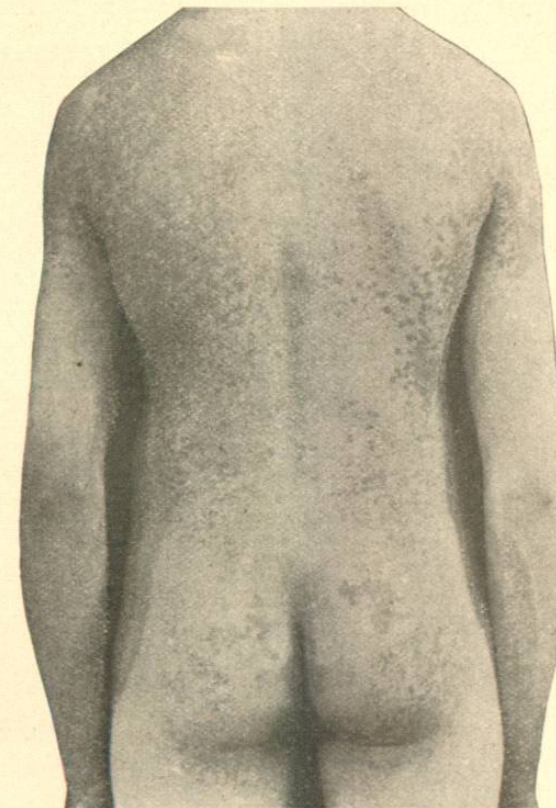


Fig. 19.—Chromophytosis (Dyer).

twenty grains to the ounce of alcohol; freshly prepared sulphurous acid; will all promptly remove the discoloration. Stelwagon recommends:

| | | |
|----|------------------------------|-------|
| R̄ | | |
| | Sulph. Precip., | ʒss. |
| | Saponis Viridis, | ʒxij. |
| | M. Sig. Apply with friction. | |

In carrying out the treatment the smallest macule must not be overlooked, otherwise it will form a focus for future development.

CLAVUS.

Synonym: Corn.

Definition and Description. A corn is a small, flattened, round or oval, horny formation seated in the skin usually about the toes. It has a harder central portion, the core, which is conical in shape, the apex resting upon the sensitive corium.

The corn may be single or multiple and is usually situated upon the dorsal aspect of the toes, or the outer side of the little toes. When located between the toes from warmth or moisture the corn becomes macerated and is then called a "soft" corn," having often a deep pit in the centre instead of a core.

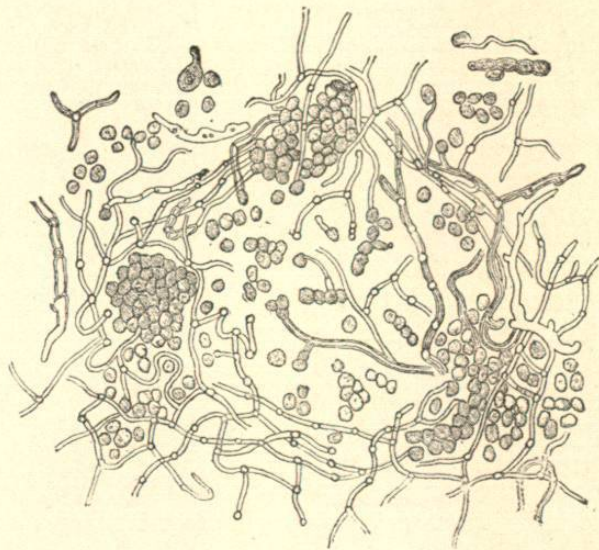


Fig. 20.—Microsporon Furfur x 700 (Schamberg).

Corns are caused by friction and pressure. They are tender and spontaneously painful. Corns sometimes become inflamed and follow the course of inflammation elsewhere, ending in suppuration and ulceration.

Treatment. Ill-fitting shoes should be discarded to relieve friction or pressure, and the corn then not infrequently disappears spontaneously.

A simple method of treatment, and the only one usually adopted by the laity, is to soak the foot in hot water and then cut or rasp away the outer layers of the corn. This procedure must be repeated at short intervals.

A corn plaster, which is a disc of felt with a central opening, may be worn to form a cushion against undue pressure.

A saturated solution of salicylic acid in collodion may be painted on the corn twice daily for a week. This will remove most, if not all, of it,

and may be repeated if necessary. Salicylic acid plaster ten to twenty per cent. may be cut in appropriate pieces and applied to the corn, the whitened skin being removed with a knife before each application. Soft corns should be treated in the same manner and when the mass is removed the surface left should be touched with nitrate of silver or carbolic acid.

If the corn prove obstinate a good plan is to extirpate the growth surgically. Cocaine anaesthesia is used, an elliptical incision is made, and the corn excised; the wound is then sutured to form a small, linear cicatrix.

COLLOID DEGENERATION OF THE SKIN.

Synonym: Colloid Milium.

Definition and Description. Colloid degeneration of the skin is an exceedingly rare disease, only about six cases having been reported. Millet-seed or pea-sized, glistening, rounded papules appear about the upper part of the face, conjunctivæ and septum of the nose, or upon the back of the hands. They are of a bright-lemon color or yellowish-brown and translucent. When punctured a transparent material can be pressed out. The lesions do not coalesce, but remain separate. They differ from milium in color and consistence, and are much smaller and more translucent than xanthoma.

Treatment. The lesions should be incised and their contents expressed, or they may be destroyed with the electric needle.

COMEDO.

Synonyms: Flesh worm, Blackhead.

Definition and Description. Comedo is an affection of the sebaceous glands in which the excretory ducts become filled with plugs of sebum, showing as minute black points on the surface of the skin. They occur upon the face, back, shoulders, and also on the genital organs and about the margin of the anus. The demodex folliculorum, a grub-like insect, is occasionally met with in the comedo. The hardened secretion may be readily extracted with the finger nails or an instrument devised for the purpose called the comedo extractor of which there are several forms. When thus extracted, the comedo consists of a cube of solidified sebum with its aerial extremity much darker than the remainder; or the mass may be semi-solid, formless and white, frequently with an odor resembling that of sour buttermilk.

Comedo may appear in groups and is occasionally double. The black extremity is due to dirt or a chemical change in the secretion. The affection occurs as a distinct disease, but is usually a concomitant of seborrhœa and acne, being largely concerned in the pathogenesis of the latter.

Comedo occurs in young adults and is an exceedingly common disease. It is more or less dependent upon a sluggish, atonic condition of the skin and is frequently associated with digestive disorders, menstrual derangements, anæmia and chlorosis. These conditions may, however, be con-

spicuously absent and the patient present, with the exception of comedo, every appearance of robust health. The cause is then to be looked for in some feature inherent in the skin, and is found in its quality and texture.

The affection tends to disappear with increased age and its course is essentially chronic.

Treatment. The constitutional treatment is carried out on principles of general medicine, and is directed at the relief of any disturbance of health that may be found associated with comedo.

Local treatment is practically identical with that of *acne vulgaris*. The comedones must be removed and such remedies applied as tend to stimulate the sebaceous glands to better functional activity. Compresses of hot water should be applied to the face, followed by frictioning with tincture of green soap, full strength or diluted with water. A lotion of bichloride of mercury 1:1000 may be applied after the soaping process. Weak sulphur lotions or ointments may be used with advantage, such as these:

| | | |
|----|--------------------------------|------|
| R̄ | Sulphur. Precip., | ʒj. |
| | Spirit. Lavandul., | ʒij. |
| | Aquæ Rosæ ad, | ʒij. |
| | M. Sig. Shake and use locally. | |

| | | |
|----|--|------|
| R̄ | Sulphur. Precip., | ʒij. |
| | Ung. Aq. Rosæ, | ʒj. |
| | M. et ft. unguent. Sig. Rub in well on retiring. | |

If the trouble prove rebellious the X-rays may be employed for their effect upon the cutaneous glandular system. Under their influence there is an atrophy of the sebaceous glands and a disappearance of the comedo, but the treatment must be carried out with every caution, and not every one possesses the experience necessary to minimize the risk in employing so potent a remedy.

Actinotherapy is also serviceable and devoid of risk. The 2-500 candle power lamp may be used for this purpose.

Massage and electricity are both beneficial from their tonic effect upon the skin.

Prognosis. While the prognosis of comedo is favorable, it must be remembered that the process is wide spread and indolent, and both time and fidelity to treatment are required to obtain successful results.

CORNU CUTANEUM.

Definition and Description. Cutaneous horns are growths or excrescences from the skin of varied shape and size, which when fully developed

are of similar structure to the horns of lower animals except that they are not situated upon an osseous base.

Cutaneous horns are elongated, twisted, conical or irregularly shaped, hard and dry, grey, black or brownish in color. They are usually single, and occur chiefly upon the faces and ears of old people, though no age or region of the body is exempt. They occasionally spring from the remains of a sebaceous cyst and are not infrequently associated with epithelioma.

Histologically, cutaneous horns are composed of lamellæ of cornified cells with the papillæ of the base greatly elongated. Their structure is similar to that of a wart.



Fig. 21.—Cutaneous Horns (Van Harlingen).

Treatment. The treatment of cutaneous horn consists in avulsion and cauterization of the base, or excision and suture. Unless thoroughly removed they tend to return.

CYSTICERCUS CELLULOSE CUTIS.

When *cysticerci* are present in the skin and subcutaneous tissue, they appear as pea- to filbert-sized, firm, rounded, freely movable tumors which attain a certain dimension, and then tend to remain stationary for months. The parasites are discovered by microscopic examination of the tumors, or the fluid obtained by incision. They are the scolex of the *tenia solium*, or tape worm.

DERMATALGIA.

Definition and Description. Dermatalgia is an affection of the skin accompanied by pain without appreciable lesion. It is secondary to some nervous disorder, such as locomotor ataxia, or some constitutional disturbance, such as rheumatism. The pain occurs spontaneously and is burning and continuous, or sharp and paroxysmal. It varies in intensity, and is increased by pressure. Inspection of the skin reveals no departure from the normal. The pain is usually localized and chiefly affects the hairy portions of the body, especially the scalp.

Treatment. The treatment of dermatalgia consists in removing the cause if possible. The salicylates are to be given if rheumatism be suspected. Locally, galvanism or the static currents may be used. Evaporating lotions of menthol or camphor will afford temporary relief. Crocker advises a mustard leaf applied to the centre from which emanates the nerve to the affected region.

The disease tends to spontaneous disappearance with more or less frequent recurrences.

DERMATITIS.

Definition. Dermatitis is the term applied to acute inflammation of the skin due to some known irritant.

Varieties. Several varieties of dermatitis are distinguished on the basis of causation, and include those due to external violence; to contact with irritant plants; to the internal exhibition of certain drugs; to the effects of heat and cold; and to physiological and pathological secretions.

Dermatitis may be exceedingly mild in character, amounting to a merely temporary redness; or a severe process ending in ulceration and gangrene.

The several forms of dermatitis to be considered are as follows:

Dermatitis traumatica. Traumatic dermatitis includes all forms of cutaneous inflammation due to mechanical injury, such as friction, pressure, scratching and the like. The condition of the patient as to the general health influences the degree of dermatitis occasioned by these causes. The effects are apt to be greater in those suffering from some nutritional disturbance, local or general.

The treatment depends upon the exigencies of the individual, the cause and severity of the reaction.

Dermatitis medicamentosa. Under this head are included inflammatory conditions or eruptions of the skin due to the ingestion of certain substances classed as medicine or food. The eruption thus engendered is usually of the erythematous or urticarial type, though less commonly it may be papular, pustular, bullous or hemorrhagic. There are certain conditions which favor the occurrence of drug eruptions, and which consist

in long-continued use of a drug, especially in large doses, excessive activity of the glandular system of the skin, defective elimination by the intestines and kidneys, and personal peculiarities.

Idiosyncrasy is accountable for many of the eruptive states consequent upon indulgence in certain articles of food, as strawberries, tomatoes, shellfish, or from the administration of such drugs as quinine, belladonna, the salts of iodine. The reason for this susceptibility of some individuals, and the immunity of others, is unknown.

There is nothing distinctive about the eruptions caused by drugs except in a few instances which draw out from the throng with some particularity. Among these exceptions are the erythema resembling scarlatina from belladonna; the acneform lesions from potassium iodide; the urticarial maculo-papules from balsam of copaiba; the bullous and papilomatous eruptions from potassium bromide.

Treatment. The treatment of dermatitis medicamentosa consists in the discontinuance of the drug causing it, and attention to the special condition obtaining. Prompt disappearance of the eruption follows the withdrawal of the drug, except in case of the slowly eliminated substances like the bromide and iodide of potash, when the subsidence is gradual.

The following is a partial list of drugs which may produce an eruption, together with the relative frequency and the salient characteristic of the lesion.

Arsenic. Rare. Lesion urticarial, less often erythematous, papular or vesicular. Pigmentation follows long continued use. Keratosis of the palms and soles occasionally noted.

Belladonna. Not common. Scarlatiniform erythema on the chest, flushing of the face and dilatation of the pupils.

Bromides. A pustular eruption is the most frequent. Less frequent are fungating, purulent lesions resembling condylomata, especially in children.

Chloral. Occasional. Usually erythematous, may be papular and urticarial.

Copaiba. Not infrequent. Bright-red, maculo-papular patches, sometimes like scarlet fever or measles.

Cubebs. Less frequent and resembles copaiba.

Iodides. Common. Papulo-pustular on the face, neck and back; may be erythematous with swelling, sometimes hemorrhagic, bullous or fungating.

Mercury. Uncommon. Erythematous.

Opium. Not uncommon. Maculo-papular; erythematous and urticarial. Itching.

Quinine. Common. Erythematous with desquamation; urticarial, purpuric, vesicular or bullous. Itching.

Salicylic Acid. Rare. Erythematous; sometimes wheals.

Turpentine. Rare. Erythematous; vesicular.

Dermatitis Calorica. This title embraces inflammation of the skin produced by the extremes of heat and cold. When due to the former, the condition is called *dermatitis ambustionis* (burn); to the latter, *dermatitis congelationis* (chilblain, frostbite).

Dermatitis ambustionis. According to the severity and length of exposure to heat the inflammation may be a slight and transient erythema or



Fig. 22.—Dermatitis Ambustionis (Ohmann-Dumesnil).

vesicles or bullæ may form from deeper effect, or the skin may be entirely destroyed and sloughing and gangrene take place. In extensive burns or scalds constitutional symptoms arise, and if as much as half the body surface be involved, death is practically certain to follow.

The dermatitis that follows exposure to the rays of the sun (sunburn) is not in a strict sense a burn but is due, according to Finsen, to the effect of the actinic rays at the violet end of the spectrum.

Treatment of Dermatitis Ambustionis. The indications are for protective and sedative dressings and the exclusion of air in the treatment of simple burns. Bicarbonate of soda in powder or lotion, a one per cent. solution of picric acid, carron oil (linseed oil and lime water, equal parts), lead and opium wash, a two to five per cent. aqueous solution of ichthyol, are all serviceable.

In burns of the second degree with vesicles and bullæ, the lesions should be opened and drained, allowing the loosened epidermis to rest on the raw surface where it may retain some of its vitality, and adhere after the manner of a graft. Spread plasters of bismuth and petrolatum secured in place with bandages are comforting. When the surface begins to granulate, applications of balsam of Peru in water or castor oil will hasten the process of repair. Lister recommends covering the surface with lint soaked in a three per cent. carbolyzed oil, over which is placed gauze and rubber tissue. As the gauze becomes saturated with exudation it is replaced, but the lint is left undisturbed. Absorbent cotton, owing to the difficulty of removing it, should not be applied to a raw surface.

Burns of the third degree are treated with mild antiseptics such as boric acid, and, if extensive, with Hebra's continuous bath. To carry out this the patient is suspended in a sheet attached to the sides of a bath tub, the water of the bath being kept at about the body temperature.

Treatment of Dermatitis Congelationis. In frostbite the local heat is to be restored by rubbing with snow or immersion in cold water. In severe frostbite soothing and antiseptic remedies are required. In those subject to chilblains stimulating applications, such as the tincture of iodine, ichthyol, oil of turpentine or ointments of nitrate of silver, carbolic acid, or balsam of Peru, may be employed with advantage. Tonics and reconstructives are as a rule indicated.

Dermatitis Venenata. Dermatitis venenata is the term applied to simple inflammation of the skin caused by a local application of chemical irritants. In this instance, as well as in dermatitis of other origin, idiosyncrasy plays an important rôle, though its responsibility is naturally limited. The irritant may be applied designedly for therapeutic purposes, as in the use of mercurial preparations, arnica, cantharides, stimulating liniments and embrocations containing turpentine or strong alkalies, aniline dyes, strong acids, or it may arise from contact with physiological and pathological secretions and discharges, from wounds or from cavities of the body, from many irritant plants, such as stinging nettle, cowhage, poison oak and poison ivy. The sting of certain insects, the secretion from jelly fish, contact with some varieties of caterpillar, are also capable of producing inflammatory reaction in the skin.

The most important form of dermatitis venenata to the dermatologist is that caused by poisonous plants, especially those belonging to the *rhhus* family, poison oak or ivy (*rhhus toxicodendron*) and poison sumach or

poison elder, or dogwood, as it is variously known (*rhus venenata* vel *r. glabra*). The gum resinous substance obtained from the lacquer tree (*rhus vernicifera*), and used in making Japanese lacquer work, is also capable of causing a dermatitis.

Dermatitis venenata of this form is common in spring and autumn. Some persons allege a special susceptibility to the poisonous effects of the plant and there is a notion current among the laity that the eruption recurs at stated times each year, and that it is the forerunner of eczema and other skin diseases.

The eruption first appears in the regions exposed, and is then conveyed to other portions of the body. It especially affects the face, hands and ano-genital region where it assumes the form of patches of thickly-set vesicles or blebs, the skin upon which they are situated being red and swollen. Itching and burning are intense, sometimes even agonizing. Lax



Fig. 23.—Dermatitis from Poison Ivy.

tissues, such as that of the scrotum and lids, become greatly swollen and oedematous. The eruption appears soon after contact with the irritant, and lasts from one to four weeks.

The diagnosis is made by the location of the eruption, the rapidity of its development, the severity of the subjective symptoms and the history of exposure. Frequently careful inspection will reveal by the sharp circumscription of the erythematous patches, or linear arrangement of the vesicles, the exact points of contact with the plant.

Treatment. The number of remedies for which specific virtues are claimed occasions an embarrassment of riches and lends to the belief that among them there is no primacy of excellence. The irritant substance of the plant is said by Pfaff to be a volatile oil soluble in alcohol and precipitated by subacetate of lead. Alcohol and lead water would therefore appear to be the chemical antidotes. Sweet spirit of nitre, the fluid extract of *grindelia robusta*, a decoction of American spice bush (*benzoin*

odoriferum) have all been recommended as especially effective in abridging the course of the eruption. As a matter of fact, the eruption tends to subside when the skin is protected and soothed, and to this end sedative, antipruritic applications, with the exclusion of air, such as are of service in acute eczema, yield the best results. Solutions of bicarbonate of soda, two drams to eight ounces of water; saturated solutions of boric acid; calamine and lime water; ichthyol and glycerine; sodium hyposulphite, one dram to four ounces of water; are all useful.

The remedies should be employed until active inflammation has subsided, when an ointment of carbolic acid, ten drops to the ounce of petrolatum, or boric acid twenty grains to the ounce, may be substituted.

Internally, there is no special indication though for the nerve dis-



Fig. 24.—Dermatitis Venenata (Rhus Poisoning).

turbance brought about by the pain and itching it may be advisable to administer an anodyne, such as Dover's powder or codeine.

Dermatitis Gangrenosa vel Sphaceloderma. Gangrene of the skin may be due to many causes. It may follow severe traumatism, contusions, burns or caustic applications. It may ensue from trivial injuries in diabetics and in those in whom the nutrition of the skin has been impaired as a result of albuminuria, disease of the heart or trophic disturbances, or from affections of the nervous system. It is also secondary to anthrax, carbuncle and cellulitis. It sometimes occurs without apparent cause in hysterical individuals in which instance the possibility of self-infliction should not be forgotten.

There are two forms of *dermatitis gangrenosa* which must be considered separately. They are *symmetrical gangrène*, local asphyxia or Raynaud's disease, and *dermatitis gangrenosa infantum*.