case, the disease attacks the cheeks and nose exclusively and symmetrically, it imparts to them a peculiar appearance, compared by Hebra to that of a butterfly with outspread wings.

When hirsute parts are affected, the hairs fall off, owing to atrophy of their follicles. In the rare cases of spontaneous recovery from the discoid form of lupus erythematosus, the borders of the eruption become pale and flat, and a shining, superficial, atrophied spot remains behind, usually white, and resembling the scar left by a burn. More deeply-reaching cicatricial infiltrations are not infrequently found, especially on the auricle and the nose.

Aside from the deformity, lupus erythematosus discoides generally entails no bad results. The patient's constitution usually remains unaffected, and suppuration and ulceration never take place.

Much more malignant is that form of the disease entitled by Caposi lupus erythematosus disseminatus s. aggregatus. In this, the primary eruption is far more widely diffused. Its extension takes place through the repeated outbreak of the disease in new localities. The blotches thus produced never coalesce, even after remaining for months, but, on the contrary, may spontaneously retrogress. Caposi and others have observed this form not only on the face, head, fingers, and toes, but also on the auricle, in the meatus auditorius, on the trunk, upper extremities, palm and back of the hand, and, in rare cases, dispersed over the entire surface. It generally spreads by degrees. Occasionally, however, the complaint assumes an acute character. Caposi describes this form as follows:[1]

"The morbid process extends sometimes gradually, sometimes in the form of an acute febrile eruption, associated with nocturnal osteocopic pains, exudation in the joints, and nocturnal headache. In one series of cases, a severe swelling arose, resembling erysipelas, which, however, was confined entirely to the face. With this, there were a typhoid condition, a temperature above 40° C., coma, sopor, and a dry, leathery tongue. Half the cases resulted fatally. Along with the above symptoms, in several instances, we noticed at numerous points of the skin many hundred flat vesicles, containing either blood or a limpid fluid, such as are seen in herpes iris; these immediately dried into crusts, leaving behind them the centrally depressed formations characteristic of lupus erythematosus.

"Such acute eruptions are almost peculiar to lupus erythematosus disseminatus. They are but rarely found in connection with the discoid variety, but then this occur, also in the form of disseminated patches."

Cæsar Boeck,[2] who has observed two such acute cases, gives a very precise picture of the development of the eruption. He was unable to detect in the beginning the slightest trace of a depression or of a follicular opening in the centre of the spots. This phenomenon only develops at a later stage of the complaint.

On mucous membranes, lupus erythematosus has been observed on the lips, eyelids, the hard palate, and cheek. The lips, when thus affected, are very dry, and covered with exceedingly fine scales, resembling grains of grayish sand. Caposi found on the palate and inside of the cheeks large patches beset with bluish-white cicatrized spots, and with superficial red or grayish excoriations, from mere points to the size of a lentil.

[1] Moritz Caposi: "Pathologie und Therapie der Hautkrankheiten," Wien, 1880, p. 609.

[2] "Zwei eigenthümliche Fälle von Lupus erythematosus disseminatus." Norsk. Magazin for Laegevidenskaben, vol. i., pp. 1–28, 1881.

Pathological Anatomy.—Neumann's recent clinical observation of the disease in the palm of the hand, where no sebaceous glands exist, together with the anatomical investigations of Thin, Geber, Caposi, and Vidal, have demonstrated that the sebaceous, as well as the sudoriparous glands, perform only a secondary part in its production, that, ordinarily, this morbid process commences in the corium—especially in the papillary body (rarely in the deeper cutaneous layers or in the subcutaneous cellular tissue)—with a dilatation and engorgement of the blood-vessels, and that the vascular network surrounding the glands only subsequently becomes involved. Hence, also, it follows that the parts most liable to be attacked are those most subject to engorgement and vascular dilatation during the course of other disorders (acne rosacea and congelations), as the nose, cheeks, ears, and backs of the fingers and toes. The vascular dilatation leads directly to a copious cell-infiltration and to a circumscribed aggregation of cells. An increased formation of cells, with hypersecretion of fluid, takes place in the glands. At the same time, we meet with a new formation of connective tissue and a soaking of the tissue with serum. The newly-formed cells and the connective tissue fall next into a state of fatty and hyaloid degeneration; then occur the cicatricial atrophy of the latter, the shrivelling of the glandular follicles it incloses, and the partial obliteration of blood-vessels, on which process the central depressions uniformly depend.

The epidermis exhibits a splintery state of the horny layer, with fatty degeneration and consequent cloudiness of the rete, passing at last into a condition of atrophy.

Etiology.—Lupus erythematosus is a comparatively rare dieease; it is more frequent among females than males. It appears in general between the twentieth and fortieth years, only exceptionally at an earlier or later period. Its etiology is still quite obscure. Diseases of the skin which are associated with intense hyperæmia are predisposing influences. In one of Caposi's cases, the malady proceeded from a nasal seborrhœa, after small-pox; we have known it to follow erysipelas; Auspitz observed it as a result of acne rosacea. In one instance, we saw it arise in the vicinity of leech-bites near the eye and on the site of a fly-blister behind the ear. It frequently coexists with scrofulosis, tuberculosis, gout, and chlorosis, and patients very often have an anæmic appearance. It is met with quite often in subjects otherwise perfectly healthy.

Diagnosis.—The diagnosis of this affection is generally unattended with difficulty, yet it is possible to confound it with the following:

1. *Lupus Vulgaris.*

Lupus erythematosus prevents small, superficial red points, on which firmly adherent scales with conical processes are produced. Lupus vulgaris begins with an eruption of brownish papules deep in the substance of the cutis. Lupus erythematosus never passes into softening, suppuration, and ulceration, and never results in nodes, like lupus vulgaris. Lupus erythematosus is always confined to the cutis and the subcutaneous cellular tissue; deeper-lying structures, as the cartilages, are never affected.

2. *Acne Rosacea.*

The nose and cheeks are localities common to both complaints. On the other hand, the wall, the central cicatrix, and the firmly-adherent scales, are wanting in acne rosacea, while vascular dilatation is often more prominent in that disease, and is accompanied by the formation of pustules and nodules.

3. *Herpes Tonsurans.*

This runs a much more rapid course and exhibits no central cicatrix; its patches are surrounded by vesicles, and its fungi are microscopically demonstrable.

4. *Psoriasis.*

The scales in this disease are of a silvery lustre, and their removal exposes a bleeding surface. They send forth no processes between the papillæ, and the central cicatrix is wanting.

5. *Circular Syphilide.*

The redness of lupus erythematosus disappears under pressure, and its outline is continuous. In the syphilide the redness is not removed by pressure, and its margin exhibits a hard, shining infiltration. The wall of the syphilide, when closely examined, is seen to be composed of single eruptive formations.

According to Caposi, aggregated lupus erythematosus in its earliest stage resembles eczema impetiginosum, squamosum, herpes tonsurans, maculosus, and even herpes iris, but is distinguished from all of these by its speedily formed central, cicatricial depression.

Prognosis.—This is favorable, so far as life is concerned, especially in the discoid variety, while the disseminated form is frequently attended with dangerous acute eruptions and malignant complications. Still, even these very seldom result fatally. Spontaneous and complete recovery is exceedingly rare. Lupus erythematosus is a very lingering and obstinate complaint, and hence its prognosis should always be guarded, especially as to duration, although cures are rapidly effected in individual cases. The aggregated form is least amenable to treatment. It is usually succeeded by cicatricial formations which frequently give rise to troublesome telangiectasias.

Treatment.—We have not succeeded in curing lupus erythematosus by internal remedies alone. Iodide of potassium, arsenic, and iodide of starch have all failed in our hands. Yet I would endeavor to strengthen the patient's general constitution as far as possible. Where we detect signs of scrofula, tuberculosis, gout, or chlorosis, treatment should be adapted to meet the indications thus presented. When none of these diatheses exist, we must be content with prescribing good air and the most invigorating diet.

These considerations tend to increase the importance of local treatment. A long list of outward applications have been tried and recommended in this intractable affection, no one of which has proved reliable in all cases. A remedy that has previously worked admirably may come to disappoint us in precisely similar cases, and this is true even of the most powerful caustics. The cauterized places, indeed, heal over, but on the other hand the disease reappears and extends itself wherever reaction occurs on the borders of the eschar. We possess no remedy that will prevent the return of the exanthem, and consequently can only keep on destroying it over and over again. Those curative measures are to be preferred which are least apt to be followed by disfiguring cicatrices.

The following remedies have been of most service in our hospital practice.

When the patches of lupus erythematosus are small and circumscribed, the iodide of mercury (at a strength of 1:5 to 15 ointment) has been productive of excellent results. After the affected spots have been cleansed from fat and adherent scales, they are thickly coated with the ointment by means of a camel's-hair brush. This is allowed to remain until the formation of vesicles filled with pus, which usually occurs in the course of six weeks, though sometimes at a later period. Then what is left of the ointment is carefully removed, and the vesicles suffered to dry into crusts and finally to fall off spontaneously. In some cases this application has to be frequently repeated on at least a portion of the affected surface. In this way, we have effected many rapid cures, without leaving scars.

A more energetic agent, and one especially to be recommended in the treatment of lupus erythematosus corneus, is chloracetic acid. This is valuable on account of its rapid yet not too penetrating action, which causes but little pain and is confined within the exact limits of the application, the slight degree of inflammation it excites in the vicinity, and the smoothness of the resulting cicatrix. It is decidedly preferable to most other acids. It is laid on with a glass rod and speedily forms a white eschar; into this is bored a pointed glass rod dipped in the acid.

When larger surfaces are to be acted upon, we prefer the use of pyrogallic acid. This is applied in the form of an ointment (1:10 vaseline) which is spread upon linen, or in that of Unna's gutta-percha plaster mull (15 gm. pyrogallic acid pro 1–5 qm.), and is kept on for three or four days, until it has produced a superficial brownish eschar, which is covered with an iodoform bandage and left undisturbed until it sloughs off. The diseased parts are powdered thickly with iodoform and dressed with iodoform gauze. Iodoform gutta-percha plaster mull, 10 gm. pro 1–5 qm., is also useful on small patches, but not on more extensive surfaces, since it does not absorb the abundant discharge. Iodoform not only prevents reaction in the neighborhood, but has also a decidedly curative effect on the lupus erythematosus.

The result of this combined treatment is often surprising.

When these measures fail, we should not have recourse to the curette, which always gives rise to speedy relapses, but should rely upon the deeper-reaching operation of pricking, as recommended by Volkmann.[1] This is done with a sharp lancet, or, more rapidly, as proposed by my brother, Dr. E. Veiel,[2] with an instrument formed of six lancets set closely together. The skin is pierced by hundreds and thousands of punctures arrayed as densely as possible in manifold intersecting lines, so that it looks as if hacked in pieces, and has a peculiar pale, livid hue. The use of the knife is far more difficult in cases of lupus erythematosus than in lupus vulgaris. After arresting the flow of blood by pressure with antiseptic sponges, an application of iodoform powder is made. As a rule, the pricking has to be frequently repeated in order to obtain a complete cure. Small surfaces may be anesthetized by the use of Richardson's ether vaporizer; on larger ones, chloroform must be employed. The *scarifications linéaires quadrillées* introduced by Vidal[3] are also very effectual, when combined with the application of iodoform.

This process consists in making, with a double-edged knife, resembling a cataract-needle, several parallel incisions as close to one another as possible, but not quite penetrating the cutis; these are crossed by similar ones at right angles, so that the entire surface appears as if traversed by deep furrows.

Caposi testifies to very favorable results from the employment of the gray emplastrum hydrargyri, which, however, must be kept applied for a long time; according to him, it is of special service in the aggregated form of the complaint. He has likewise effected numerous cures by frictions with spiritus saponato-kalinus. After the use of this remedy, Neumann covers the skin with white precipitate ointment (1 : 8). When

[1] "Sammlung klinischer Vorträge," No. 13.
[2] Archiv für Dermatologie und Syphilis, p. 278, 1873.
[3] "On Lupus." Gaz. des hôpitaux, 22, 27, 33, 35, 1879.

time permits, a trial of this remedy is advisable. As to the merits of the naphthol paste recommended by Caposi (naphth. 5 : starch-flour 100, applied as a paste daily, for three days in succession, until a brown eschar is formed), or of the collodion of mercurial sublimate proposed by the same writer and by Boeck, experience does not justify us in offering an opinion.

DEEP-SPREADING INFLAMMATIONS OF THE SKIN.

A. ACUTE DEEP-SPREADING INFLAMMATIONS

BY

PROF. E. GEBER,

IN KLAUSENBERG.

ERYSIPELAS.

ERYSIPELAS has already received detailed consideration in another part of this handbook (Vol. II.). The subject is again presented, on account of its natural connection with the other affections of the skin. It is our purpose to define, in a concise manner, the present doctrine of erysipelas from the dermatological standpoint.

I will remind you at the start that many very valuable doctrinal views, which modern investigations have proven to be correct or acceptable, had been expressed by the old Greeks, Latins, Arabians, and by the writers of subsequent centuries. Nevertheless, accurate as are the descriptions of our predecessors, and much as they testify to conscientious observation at the sick-bed, their standpoints are not always the results of objective examination, inasmuch as they often, even in essential points, confound cause and effect and the like with one another. Among the number of false conclusions, I will point merely to the following illustration. Because the disease often begins with gastric symptoms, the conditions producing these were formerly regarded as producers of the erysipelas. To-day we are far from assuming that the disturbed secretion of bile, the thin or acrid, spoiled, warm humors, the interference with the functions of the intestinal tract, or the ingestion of articles of food which are digested with difficulty, and the like will produce erysipelas. In like manner, we may regard as dispelled the erroneous conception that the disease is the result of suppressed bloody and mucous fluxes, disturbed perspiration, and violent mental excitement. Nor can scarcely any one be found among us who regards it as a deposit—apostasis—upon the surface. which Nature employs for the excretion of a dross, a materia peccans.

On the other hand, there are a number of prominent medical clinicians who have retained so much of tradition that they assume an autochthonous, medical erysipelas, developing from general infection, and place this as E. spontaneum, idiopathicum, or verum in opposition to E. chirurg., traumaticum, spurium, or nothum, which originates from an injury.