

Therefore the lead plasters alone remain, and may be applied to the skin for a long time without irritating it, since the oxide of lead, which is destitute of carbonic acid, saponifies easily with the fatty acids. If some fat is added to such a plaster (empl. plumbi simplex, empl. diachylon simplex), the preparation acquires the consistence of a cerate, and in this manner presents the most perfect form possible, in which fat can exercise its favorable effects upon the surface of the skin. This is the reason of the unexcelled action of the so-called Hebra's ointment (ung. diachylon simplex, made of empl. diachylon simplex, carefully prepared in a water-bath to the consistence of an ointment with almost equal parts of oil or fat).¹

Apart from the fats as a basis, the most varied medicinal substances are mixed with ointments and plasters, and employed successfully upon the skin. A prominent part is played by the metallic oxides and salts, especially (in addition to those of lead) oxide of zinc, subnitrate of bismuth, mercury, sulphur, iodine, narcotic substances, etc.

Unna has recommended recently a new form of application of medicinal substances with fats in which mull fabrics impregnated with ointment mixtures are employed as bandages to diseased parts. This method, which is constantly being improved, appears to be suited for extensive employment.

The special peculiarity of another series of curative measures, of which tar is a representative, appears in the main to be an effect upon the epidermis and the process of cornification, indirectly also upon the vascular and nervous apparatus in the corium. It is well to discard coal-tar, and the impure varieties of wood-tar, the empyreumatic constituents of which act as an irritant, and to employ only distilled wood tar (beech, birch or juniper tar). As a matter of experience, these produce a diminution of excessive formation of scales, diminution of hyperæmia, especially venous, and thus of chronic infiltration of the skin, finally a striking relief of pruritus and, in this latter respect, often exercise the most surprising effect.

I regard their application as most effective when they are employed pure, *i. e.*, without admixture with fat, soap, especially without any addition of alcohol.

Tar should be applied in very small quantities, with a strong bristle brush, and then well rubbed in. Applied in large quantities, and upon parts of the skin which are very congested, sensitive, and contain much exudation, it does not act favorably, and may even produce violent reaction.

Like tar in its action, but not equal to it in efficacy, are carbolic acid, creasote, salicylic acid, benzoic resin, chrysarobin, pyrogallol, naphthol, a few mercurial preparations (ung. præcip. album, solution of corrosive sublimate and sublimate collodion), also occasionally sulphur (sulphur flowers, precipitated sulphur, sulphide of calcium and potassium²), and finally a few resins (balsam. peruvianus, storax liquidus, oleum roris

¹ Experience has taught that the employment of oxide of lead in this manner, even for a long time and over extensive surfaces, never produces toxic symptoms. I have never observed lead colic or the like, among the many eczematous patients treated in this manner. This is true in a similar manner of the emplastrum hydrargyri.

² Upon an acutely inflamed skin, sulphur always produces an increase of the infiltration and exudation, as well as increase of the subjective symptoms. As a rule, however, sulphur acts admirably upon the subjective as well as objective phenomena, as soon as the acute inflammatory process deeper down has run its course or diminished considerably, but the disease of the upper layers has developed more markedly (scaly forms of skin diseases of all kinds, anomalies of glandular secretion, mycoses). In chronic skin diseases of all kinds, Hebra has recommended a solution of sulphuret of calcium (according to Vlemingx-Schneider) (℞ Calcis vivæ, libram; Sulf. citr., libras

marini). The last-mentioned group, which is characterized by its strong odor, in addition to its action on the continuity of the horny layer, is employed successfully, either alone or in combination with sulphur, soap, and the like, against the parasitic animals and plants which have their habitat in the horny layer, and are not merely situated temporarily on it.

The various caustic remedies serve for the destruction of morbid products and for irritation.

These include: the organic and mineral acids (nitric, hydrochloric, sulphuric, acetic acids, chromic acid in substance); nitrate of silver; caustic potash.

Vienna caustic paste (potash and lime in equal parts rubbed with alcohol and the paste applied the thickness of a knife-blade within a wall made artificially of adhesive plaster).

Chloride of zinc paste, as Landolfi's paste (with chloride of bromine and chloride of antimony); or in sticks (moulded with nitrate of potash 1 : 0.4-0.2 according to Koebner).

The various caustic preparations of arsenic, Dupuytren's powder,¹ Hebra's arsenic paste,² pulv. Cosmii,³ Marsden's,⁴ and Esmarch's⁵ paste;

Glycerin iodide;⁶

Corrosive sublimate, alone or with collodion;

Plenck's solution;⁷

Liquor Bellosti (hydr. nitric. oxyd.); finally, the actual cautery, galvano-caustic and thermo-caustic apparatus.

An important part in recent therapeutics of the skin is played by mechanical treatment by means of Volkmann's spoon, the sharp and pyramidal prong fastened to the spoon (Auspitz), and the flat, double-cutting lancet-needle for cutting out vessels in the skin; the various snapper-like apparatus for the same purpose, finally the electrical needles and combinations of needles for the destruction of the hair-follicles, the latter being especially recommended in America in recent times.

In many skin diseases, especially epidermidoses (nævi, pointed condylomata and warts, superficial epitheliomata), in many chronic nodular and pustular formations (acne and sycosis), in acne rosacea, furthermore in certain new formations starting from the corium (lupus tuberculosus and erythematosus), mechanical treatment, either alone or combined with other medicinal agents (for example, caustics in the pricking of lupus nodules, and the like) constitutes a very useful, occasionally (as in sycosis non-parasitaria) the sole therapeutic method, attended with good results.

duas. Coq. c. Aq. font. libr. 20 ad reman. libr. 12, filtra), also sulphur ointments, mostly in combination with soap and tar. In chronic scaly eruptions of all kinds, also almost exclusively in scabies and mycoses, with the exception of favus which requires more vigorous remedies, I have for years employed a sulphur ointment, combined with storax and soap, according to Weinberg, which has the following composition: ℞ Storacis liq., Flor. sulf. lotor., Cretæ alb. pulv., āā 5.0; Saponis kalini, Axung. porc., āā 10.0; f. ung. This ointment enables me to dispense, as a rule, with other remedies, on account of the rapidity of its action in slight irritation in the above-mentioned pathological processes.

¹ Acid. arsenicos., 0.2; Calomelan., 20.0.

² Arsen. albi, 1.5; Cinnabaris factit., 3.0; Ung. rosat., 20.0.

³ It should be prescribed: Arsenic. albi, 1.0; Cinnab. factit., 35.0; ft. pulv. It should be prepared with gum water.

⁴ Arsenic. albi, 10.0; Gummi acaciæ, 5.0.

⁵ Morph. mur., 0.25; Arsen. albi, 0.25; Calomel., 0.12; Sacch. alb., q. s. ut f. pasta.

⁶ Iodin., Potass. iodid., āā 2.5; Glycerini, 5.0.

⁷ Hydr. subl. corr., 2.5; Spir. vini, Acet. vini conc., āā 25.0; Camphor, Alum, Cerussæ, āā 2.5. Ft. pasta.

With regard to internal remedies, I will merely make a few remarks concerning arsenic, atropine, pilocarpine, and a few other alkaloids.

The internal or hypodermic use of arsenic has been highly praised in the treatment of carcinoma of the skin, lupus, psoriasis, and lichen ruber.

There is no doubt that arsenious acid influences the nutrition of the skin, as is shown in arsenic eaters, and in horses to whom arsenic is given in order to make them fatter and the skin more glossy.

A number of alkaloids, particularly ergotine, pilocarpine, and atropine, have been recently used with success in the treatment of angioneuroses and neuroses of the skin.

Finally, a few words concerning the beautifying of the skin.

1. A healthy integument is not necessarily beautiful. Even if all requirements concerning diet, residence, atmospheric and climatic conditions, etc., are carried out, the complexion is often extremely bad. The general condition of health has no influence on the beauty of the complexion, though it has upon the health of the skin.

2. Cleanliness is a *sine qua non* of the beauty of the complexion, though it does not play a great part in the health of the skin.

3. Water is serviceable to the skin only in moderate amounts and at moderate temperatures. Very cold or warm baths, when used to excess, diminish the elasticity of the skin and its power of resistance to external irritants.

4. Distilled and so-called soft water are more suitable for washing and less irritating than hard water.

5. The hard soda soaps are usually preferable to the softer potash soaps for toilet purposes. The quality of soaps depends upon the quality of their constituents and the thoroughness of the saponification. Good soaps must not contain free alkali, or any foreign, irritating substance. The addition of moderate quantities of perfumes does not materially change the quality.

6. Simple, finely ground powders, such as starch, magnesia, etc., are entirely innocuous and often act as a useful protection against external irritants.

7. Frequent application of alcohol abstracts the water of the skin, makes it dry and brittle, and impairs its nutrition. This is also true of glycerin. All toilet washes containing alcohol to any considerable extent should be avoided.

8. This is true to a still greater extent of other additions to washes, such as corrosive sublimate, mineral acids, certain metallic salts, etc.

9. Camphor acts merely as a bleaching powder. This is also true of benzoic resin, sulphur flowers, and substances containing tannic acid.

10. The use of sweet smelling oils and fats should be employed to a greater extent than is now done for toilet purposes.

11. This is particularly true with regard to the growth of the hair. The nutrition of the scalp should be increased by the rational application of fat (for example, in the form of oil-baths by means of the application, at night, of a sponge soaked in oil upon the scalp), and the greater use of simple pomades; this should be applied to the roots of the hair, rather than the shafts.

12. Substances should be avoided or sparingly used which abstract water from the skin and the roots of the hair.

HYPERÆMIÆ, ANÆMIÆ, AND HEMORRHAGES OF THE SKIN

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HYPERÆMIÆ.

By *hyperæmia* is meant that transient or continued condition of the entire system or of single parts, in which the blood-vessels present either an excessive accumulation of blood or its actual superabundance. Excess of blood in single parts is only a partial manifestation of general congestion; the former constitutes *hyperæmia* proper, the latter *plethora*. In both cases, an increased blood-pressure may result either from heightened vascular energy or from diminished resistance in the vessels. Increased blood-pressure causes an influx of arterial blood; diminished resistance produces accumulation of venous blood, and hence we distinguish between *arterial hyperæmia* or *hyperæmia from fluxion*, and *venous hyperæmia* or *hyperæmia from engorgement*.

Cutaneous hyperæmia is made known by visible alterations in the integument. The congestion extends to the vessels inclosed within the layers of the corium, and in some places to those of the subcutaneous connective tissue. It affects a larger or smaller area, according to the causal conditions, and leads to changes in the color of the skin.

These forms of congestion are also known as active and passive hyperæmia; *active*, when the blood-vessels undergo an enlargement, and their contents are propelled more rapidly; *passive*, when, in consequence of obstacles, the flow is retarded. These terms correspond to the mechanical conditions, though we regard the division of the hyperæmiæ into those from fluxion and those from engorgement as physiologically more correct, for strictly speaking, every congestion constitutes a passive condition, since only enlarged vessels are capable of containing a surplus of blood, while every contraction of arteries or veins produces an active condition, in which a diminished blood-supply always results from a shrinkage of the vascular lumen. Consequently, also, a precise distinction between hyperæmiæ arising from an increase of arterial blood, and those due to an incomplete emptying of congested veins, though warranted by science, is of little practical importance. In the majority of cases, however, the fluxion-hyperæmiæ are distinguished