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ON THE THERAPEUTIC VALUE OF OIL AND WATER IN THE TREATMENT OF SKIN DISEASES.

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THE skin, as is well known, is furnished with two kinds of glands for the purpose of keeping it soft and pliable—viz. sebaceous and sudoriparous glands. While the excretions they pour forth serve other important purposes among the general uses of the economy, there can be little doubt that they have a special action on the skin itself. Further, their diminution or suppression is a circumstance that materially influences the progress of various diseases which attack this important organ. Observation has induced me to believe that there are some of these which more especially affect the oily, whilst others injure the watery secretion. For example, prurigo, lichen, and the scaly diseases are accompanied by dryness of the skin, whilst eczema and impetigo are accompanied by excessive moisture of the surface. Be this as it may, experience has convinced me that there is a class of skin disorders which are readily cured by applying oil or grease constantly to the surface, whilst there is another class which require a similar application of water. Moreover, I believe, although innumerable ointments and lotions have long been employed in cutaneous diseases, that the active agents in all of them, with few exceptions, are not the drugs which they hold in suspension or solution, but simply the oily or watery matters which constitute the bases of these preparations. The establishment of this doctrine, and the careful discrimination of the diseases or textural alterations which

require the one remedy or the other, must not only simplify but give greater precision to our therapeutical efforts for their proper management.

Indications for the employment of oil.—In all cases where there is excessive dryness of the skin, inunction with oil or grease is necessary. For eruptions which are essentially dry in their nature, such as prurigo, lichen, psoriasis, lepra, pityriasis, favus, &c. oil or grease are essential remedies, and have long been used in the form of various ointments. Pure oil, though beneficial when friction is desirable, and used as a liniment, is too thin and too easily removed from the skin to produce a permanently emollient effect on indurated epidermis. Hence grease or fat, that is, inspissated oil, has long been employed as ointment. Even this, however, rapidly melts on the surface of the warm skin, and is soon rubbed off, or absorbed by the clothes or substances on which it is spread. This is corrected by mixing with it various dry powders, such as sulphur, oxide of zinc, calamine, &c. These give to the fat a consistence which renders its action permanent, and prevent its rapidly melting or being too readily lost or absorbed.

I have long satisfied myself that the various powders mixed with fat act mechanically by thickening it, and exert no other therapeutical action. Sulphur ointment, for example, is an excellent application in scabies, because lard thickened with sulphur is more tenacious, more readily blocks up the follicles and grooves inhabited by the itch insect, and thus induces their more perfect asphyxiation. But that sulphur exerts any specific action, either on the insects or on the human economy, is disproved by numerous facts. In the same manner, the oxide of zinc, or white precipitate ointments, are excellent applications in prurigo or lichen; but that zinc or mercury are the active agents which cure is disproved by the circumstance that simple lard will in those diseases, as in scabies, produce, though more slowly, the same effect.

In the scaly eruptions, however, more especially psoriasis and lepra, the admixture with the lard of pitch or tar is essential to success. These substances unquestionably contain a principle which exerts a remarkable local action in the removal of these diseases. I say local, because I have given pitch pills and

infusion of tar in large quantities internally without causing any effect whatever. Neither has creasote nor carbolic acid any influence on these scaly eruptions. No remedies probably are so beneficial in relieving pruritus in the skin, especially creasote mixed with ten times its bulk of oil; but in psoriasis they are of no avail. Pitch combined with lard, therefore, is essentially the remedy in squamous diseases of the skin.

It is now twenty-seven years ago that I pointed out, as the result of a series of investigations into the parasitic fungi growing on the skin, that such growths seldom flourished when deprived of access to the air. I therefore proposed, instead of applying various ointments to the scalp in cases of favus, first, to remove the crusts by means of poulticing, and, secondly, to keep the clear surface covered with oil. So long as this is done the head can be kept free from the disease. In recent cases, after six weeks or two months, a permanent cure is not unfrequently produced. In chronic cases, though a cure is never readily obtained, the offensiveness of the disease and all irritation is at once removed. In 1840 I watched with great interest the results of the depilatory treatment carried on in the Children's Hospital, of the Charity Hospital, in Berlin, by Professor Barez. Although two old women were constantly employed there pulling out the hairs from the scalp in cases of favus, in no one single instance did I see a permanent cure effected. The practice has been revived by Bazin and others, but such is the difficulty of thus eradicating the hairs in the human scalp, and such is the tediousness and pain of the treatment, that I do not anticipate much success from its employment. It has been adopted by Dr. McCall Anderson, of Glasgow, in the Skin Dispensary of that city. A few of his cases, said to have been dismissed cured, have found their way subsequently into my Clinical Skin Ward of the Edinburgh Royal Infirmary, with their heads covered with favus. I mention this merely to show how very difficult it must be in hospital and dispensary practice to determine whether a permanent cure has really been produced. Although, therefore, I have tried, and continue to try, every kind of treatment that has been proposed in my Clinical Wards, for the cure of favus, my conviction is that, after removing the crusts, the best is the simple application of oil, combined, in scrofulous children, with good nourishment.

Indications for the employment of water.—In all cases where there is excessive moisture on the surface, originating in vesicular, pustular, or ulcerative diseases, the constant application of water is necessary. I say *constant* because occasional applications by means of lotions or of baths are of little service. For this purpose lint well saturated in water is first applied to the affected parts. This must be covered with oil silk or gutta-percha sheeting, that should well overlap the lint below so as to prevent evaporation. The whole must be kept in its place by a bandage, or the application of strings, which is often a matter of great difficulty. Patients are very slow in accepting the idea that *constant* moisture of the part is absolutely necessary, and they seldom so apply the upper covering in such a manner as to prevent evaporation from the lint below. The result is, it becomes dry, sticks to the inflamed surface, and is a source of irritation rather than of comfort. Hence vigilant superintendence and frequent visits are requisite in order to watch the progress of the case. Even in the hospital, constant care is necessary to see that nurses properly cover the eruption; and when, as sometimes happens, this task is made over to the patients themselves, it almost always fails.

There are some portions of the surface which it is very difficult to keep moist and well covered, such as the face and axilla. But by carefully adapting lint and gutta-percha sheeting, attaching strings to the edges of the latter, to keep the whole in its place, and the covering close to the skin, so as to prevent evaporation, I have never failed in ultimately carrying out my object. For the face it is necessary to construct a mask, having apertures for the eyes, nose, and mouth, and even then it is difficult to exclude the air, especially at the angles of the mouth. When the eruption is very general over the surface, tepid baths continued as long as possible must be had recourse to. Hebra has caused some of his patients to continue in them for weeks together, but of the arrangements whereby he has been enabled to accomplish this I am ignorant.

The effect of the moist application to the acutely inflamed surface, is soon to remove all local irritation, and especially the irritation or smarting so distressing to the patient. It also softens and removes the scales and incrustations, which in them-

selves often tend to keep up the disease, and prevent cleanliness of the surface. After a time the indurated parts begin to soften; the margins of the eruption lose their fiery red colour, and merge into that of the healthy skin, and, finally, the whole surface assumes its normal character. In the chronic impetigo, which attacks the chin in man, as well as when the scalp or other parts covered with hair are affected, it will be best to remove the crusts, in the first place, by poultices. It is then necessary to shave the parts every other day with a very sharp razor, using flour and warm water as a lather, and not soap; or a pair of sharp scissors with flat blades may be used to cut the hair close to the skin. If this be not carefully attended to, the short thick hairs prevent the application of moisture to the skin, a space is left between it and the lint, in which the discharge collects and concretes, and no progress towards a cure is produced.

This treatment is applicable to eczema, herpes, pemphigus, impetigo, ecthyma, and rupia. In the last case the ulcers, which appear on the disappearance of the crusts, should be treated as isolated sores with water dressing.

The water treatment of these diseases, now described, was first recommended by me in 1849, and will be found detailed in my Clinical Lectures, 5th edit., pp. 837, 839. I then and still cause to be dissolved in the fluid a small amount of alkali—ʒss. of sodæ carb. to a pint of fluid—which renders it emollient and more serviceable in dissolving the purulent crusts. The tendency which so strongly prevails to attribute therapeutic action to drugs rather than to hygienic means, caused many to attribute the good results to the influence of the alkali, and by some it has been called the treatment of eruptions by alkaline washes. But I have been satisfied from the first it is neither the alkali, nor as a wash, that it is serviceable, but that simple water, if only *constantly* applied, is all that is truly necessary.

Long experience in the treatment of skin diseases, both in hospital and private practice, has now convinced me that the really active agents in the treatment of those referred to are simply oil and water, if properly applied in appropriate cases. I have also observed that while watery applications have no effect on the dry eruptions, so greasy substances seldom fail to

exasperate such as have fluid discharges. A correct diagnosis, therefore, is of the utmost importance. I have frequently had occasion to see in the hands of others much time and trouble lost in applying water to a scaly eruption, and an acute eczema rendered most painful and intense by having pitch or other irritating ointments applied, under the mistaken idea that it was psoriasis. There are certain chronic conditions, however, of originally moist eruptions, where dry induration of the skin is caused, and then unguents are serviceable. To give a description of the forms and stages in which sometimes one or both may be useful is impossible. Nothing but a lengthened experience of the treatment and familiarity with the appearances of cutaneous diseases under varied conditions will suffice for this. But I have no hesitation in recommending the views and practice now described to my medical brethren, not only as a simple but as the most efficacious method of removing the troublesome disorders referred to.