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TREATMENT OF SIMPLE INFLAMMATION OF THE SKIN (DERMATITIS)*

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This is an exceedingly elementary subject, but I think that its importance to the practitioner can hardly be exaggerated. You must remember that dermatology is a very large subject to know but a very small one to practise. I believe that over three hundred different skin diseases are catalogued by the Royal College of Physicians, but there is no need to be frightened by this enormous nosology. Of the whole number not more than a third are common enough to deserve description in a textbook; the remainder are merely museum specimens, and of the hundred or so more important dermatoses there are scarcely more than a dozen which really need be studied by the general practitioner.

Of the skin cases which present themselves either at the general practitioner's surgery or at the out-patient department of the hospital, 95 per cent. will be found to be cases of inflammatory diseases of the skin due to some external cause, and which can be considered as manifestations of dermatitis or eczema, or of septic infection such as impetigo or furunculosis, or of various permutations and combinations of these conditions taken together. The remaining 5 per cent. consist of scabies, alopecia areata, ulcers of the legs, tinea infections, and an occasional lichen planus, or pityriasis rosea. If you can deal with these conditions there will not be many patients whom you will have to send on to the specialist or to the hospital.

Superficial Sepsis

First of all a few words on superficial sepsis of the skin—for example, impetigo. The greatest principle in the treatment of skin diseases is to avoid all measures which may increase such inflammation as may already be present. In septic infections where antiseptic measures are necessarily called for there is much temptation to use these in too great concentration in the hope of more effectively destroying the infective agents. But it must be remembered that strong antiseptics are also powerful irritants, and therefore tend to increase inflammation. It is never possible to cure septic infection of the skin by a mass attack on the streptococcus or staphylococcus. Some of the organisms always escape, inflammation of the skin is always the result, the survivors proliferate more vigorously than ever in the serous inflammatory discharges, and the last stage of the patient is worse than the first.

Antiseptics in skin diseases must always be employed highly diluted. Some antiseptics are less irritating than others. One of the least harmful is boric acid, and some of the newer preparations, such as acriflavine and other dyes, cause very little irritation. Nevertheless the various salts of mercury are still the most popular preparations for impetigo and its developments. These must always be employed in minimal concentration in order to avoid inflammatory complications.

One of the most important factors in the treatment of septic diseases of the skin is the cleansing of the surface from accumulated discharges. This must be done gently, without wounding a tender epidermis. When dermatitis is present as a complication it is often advisable to employ oil as the cleansing medium instead of water or aqueous solution. The inflamed skin does not like water, and it must be ever remembered that almost all solutions consist of water to the extent of at least 97 per cent.

Treatment of Dermatitis or Eczema

This is probably the commonest of all skin diseases in ordinary practice. Cases, of course, vary in severity to an enormous extent. There may be a single small erythematous patch, or one may be faced with an acute generalized eruption covering nearly the whole cutaneous surface. But the first principle of treatment is always the same—that is, protection. Protection must be afforded both from all forms of friction or contact and also from the evaporation with the consequent hardening and crust formation which is always taking place on an inflamed surface. It is for these reasons that fatty substances of one sort or another are so constantly useful in the treatment of inflammatory conditions of the skin. They prevent evaporation. Of the various sorts of fatty materials available, and they may be animal or vegetable or mineral in origin, pure soft paraffin is, on the whole, the most useful, but it must be pure and free from irritating contaminations. It may be thickened with various forms of animal fat such as lanoline or lard, and in prescribing ointments it is not uncommon to add a certain proportion of starch, the function of which is to soak up any discharge which may occur from the inflamed surface.

In prescribing an ointment for dermatitis we must first consider our base, and of this soft paraffin (often called by the proprietary name vaseline) is the almost invariable starting-point. It may be thickened to some extent with lanoline and possibly with starch. With this we incorporate as a rule a salt of a heavy metal. For the moment let us assume that the only function of this last constituent is to give body and substance to our ointment. The essential characteristic of the salt employed is that it be quite devoid of irritating properties. The metal most popular for this purpose is zinc, and the salt most commonly employed is the oxide, although zinc carbonate (calamine) and zinc oleate are also not infrequently used. Bismuth (either the oxide or the carbonate) may also be used, but it has the disadvantage of being more expensive.

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A Standard Ointment

Of what, then, does our standard ointment for the treatment of dermatitis consist? A fatty base containing soft paraffin, lanoline with the addition of starch, and zinc oxide incorporated therewith. Take equal quantities of each—for example, 2 drachms—and we have the well-known Morris's paste, a very useful preparation for the purpose.

But in many cases it is unnecessary to incorporate starch in the ointment. Moreover, the presence of starch makes the ointment rather stiff and a little difficult to remove from the inflamed surface when it is necessary to do so for cleansing purposes. Omitting the starch, we can write out a still simpler prescription:

℞ Ung. zinci (*B.P.*)
Paraff. moll. ... ... āā 4 drachms.
Mitte ʒ ij.

The zinc ointment of the *British Pharmacopoeia* consists of zinc oxide, incorporated with soft paraffin and 15 per cent. animal fat added in the form of lanoline. On the whole, I think this prescription the most generally suitable for all forms of dermatitis. I certainly prescribe it most frequently myself.

Another variation of the same theme is the well-known Lassar's paste. This consists of 2 drachms of zinc oxide, 2 drachms of starch, and 4 drachms of paraffin molle, with the addition of 10 grains of salicylic acid. Salicylic acid may well be omitted in acute cases, as it may cause a certain amount of irritation, and since this paste is often rather stiff, owing to the large quantity of starch in it, some people like to soften it by the addition of a proportion of almond oil or olive oil.

Up to the present we have assumed that the zinc in these ointments is perfectly inert, and merely acts as a protective. It is not, however, perfectly certain that this is its sole function, for in a very large proportion of cases it seems to possess what one may call an actively soothing property, so that when applied to the skin it gives a sensation of much greater comfort than is imparted by the application of the base with which it is incorporated; and, on the other hand, there is a very small percentage of patients in which zinc salts appear to have an irritating effect. This is shown by an increase of irritation immediately following the application. It appears probable, therefore, that zinc is not a perfectly inert substance, but that some chemical reaction does take place when it is applied to the skin. Here may I interpolate the one restriction which I think should always be observed in its employment. Ointments containing zinc should never be applied to hairy parts, especially the scalp, for there they produce a sticky mess, and seldom act well.

Cleansing the Inflamed Skin

As was mentioned above the inflamed skin seldom bears the action of water at all well. For this reason cleansing in cases of dermatitis is a matter for serious consideration. Frequent baths and washing, and especially the use of soap, are to be avoided. Gentle wiping with cotton-wool soaked in liquid paraffin or olive oil is usually best. Cleansing must not be too vigorous. If there are unusually adherent crusts they can be left until the next time; they will loosen themselves gradually.

Curiously enough, although most practitioners are aware of the detrimental effect of water on the inflamed skin, the use of lotions is not unpopular. This is really rather absurd, for after all, as I have already said, every lotion consists of water to the extent of about 97 per cent., and hence it is illogical to expect good results from them in the treatment of eczema.

The most popular lotion of all is the well-known calamine lotion, of which there are a good many different modifications, according to the percentage of calamine, zinc oxide, lead lotion, and spirit incorporated in it, and it must be admitted that a good many cases manage to get well in spite of it. Such virtue as it has is derived from the protective deposit of calamine and zinc oxide powder which it leaves behind, and, of course, in cases where the irritation is severe, it does exercise a cooling influence, which gives the patient a certain temporary sensation of comfort. Personally, I am inclined to use it only when the eruption consists of small spots only, scattered over a wide area—for example, across the back. As a rule, in such cases it is unsatisfactory to try and cover the whole surface with a layer of ointment, and gentle dabbing with the calamine lotion gives more satisfaction. It may be remembered also that the skin of the back is often naturally rather greasy, and possibly for this reason ointments do not suit it very well.

Although water is detrimental to eczema, many patients are unwilling to forgo their daily baths. Sometimes they get quite clever in keeping one limb high and dry while they soak the rest of the body. A useful tip for minimizing deleterious effects of the bath is to cover any inflamed areas with a layer of vaseline before immersion. This will effectually protect them provided the bath is taken not above blood heat, and that the period of immersion is short.

One further point of importance to remember in the matter of cleansing is that although water may be, and is, harmful to the inflamed skin, the accumulation of discharges and organic debris is even worse. Consequently in cases of inflammatory dermatitis in the region of the anus or the perineum, careful sponging after defaecation is often to be recommended. An important aid to the maintenance of cleanliness without the excessive use of soap and water is frequent change of underclothing, daily if possible; but this is always unpopular, because it is both expensive and destructive—laundries being what they notoriously are. But it is a great luxury, and has the distinction of having been practised by the Emperor Napoleon I, although it has never been alleged that he suffered from any form of dermatitis.

Principles of Protective Treatment

In my opinion too much emphasis cannot be laid upon the importance of using those substances which are most inert chemically for application to inflamed surfaces. I know that from time to time various ointments containing more active metals have had a reputation for the treatment of dermatitis. At one period there used to be a fashion for an ointment called unguentum metallorum. This contained (in addition to zinc) mercury and lead, and it is true that cases of dermatitis do get well although these more active applications are employed. I think that any virtue they may have is due to the fatty base with which they are made up, and that there is a struggle between the fatty base and the active metals like the struggle between good and evil. Fortunately for the patient and for the reputation of the physician, in most cases the patient has an inherent tendency towards recovery, which, although the best use may not have been made of it by the attending physician, wins in the end.

The theory of the protective treatment of dermatitis may be developed still further. Occlusive dressings are often of great service for inflamed areas on the limbs. Inclusion in bandages impregnated with zinc and gelatin paste such as were first introduced by the late Professor Unna of Hamburg is frequently of the greatest service. Most commonly used in cases affecting only the legs below the knee, they can be employed with advantage on the arms also. Nor is it necessary in all cases to use Unna's paste in the form of a bandage. It can also be used for patches of dermatitis on the trunk by incor-

porating it with successive very thin layers of cotton-wool so that it forms a sort of protecting mat over the area treated, and any stickiness of the mat's surface can be obviated by dusting it over with a simple powder.

Another useful method of protection is the employment of a substance called pellanthum. This is a sort of liquid ointment incorporating a good deal of zinc, which can be squeezed out of a tube, and dries on the surface to form a protective coating. It is non-greasy, and it is consequently often popular with patients, but it does not suit everybody, as it contains a certain amount of water.

Stimulating Treatment

Up to the present I have considered protective measures alone in the treatment of dermatitis or eczema, but I regret to confess that there are many cases which will not respond to these measures alone. There is an old dermatological adage that in acute cases soothing is required but in chronic cases stimulation is necessary. This is true to a certain extent, but the stimulation must be practised with great caution, for stimulation is closely akin to irritation, and we must always beware of causing irritation. Nevertheless, here I want to point out certain indications for the use of additional substances which may from time to time be incorporated with advantage in the simple protective preparations to which, up to the present, I have limited myself.

The first of these conditions is the formation of crusts and scales. These consist of imperfectly formed horny cells, which are thrown off before their time from inflamed surfaces. Their removal is greatly facilitated by the presence of salicylic acid in the ointment applied ; 10 grains to the ounce is sufficient. Sometimes, in the case of old patches where the oedema of the skin is not marked, showing that the inflammation is not very intense, improvement can be achieved by the incorporation of 1 or 2 per cent. of liquor picis carbonis in the ointment, or occasionally by painting the surface three or four times a week with liquor picis carbonis pure. This measure often also dries up groups of discrete eczematous papules which are threatening to coalesce to form a patch. Crude coal tar may also be incorporated (to the extent of 1 to 2 per cent.) in the simple protective ointment; this appears to be most useful in infantile eczema. Occasionally, too, painting with a solution of silver nitrate of 1 to 3 per cent. strength will cure troublesome fissures and cracks. Another solution that may also be used with advantage is Bonney's paint, which consists of 1/2 per cent. solution of brilliant green and crystal violet in a 10 per cent. solution of spirit, but it is hardly ever possible to prophesy in any particular case which of these solutions is most likely to be of benefit. It is still a question of trial and error.

X Rays in Treatment of Dermatitis

I cannot conclude my remarks on the subject of the treatment of dermatitis without a brief reference to the virtues of x rays in this branch of therapeutics. Personally I do not know how I could get on without them. There is no other single therapeutic agent which is of equal value in the treatment of chronic skin disease, especially, perhaps, of chronic dermatitis. Used with skill and caution they frequently produce the most miraculous effects, and clear up cases which have previously resisted all the wiles of the apostles of protection and stimulation. The opportunity possessed by the specialist of employing x rays is the sole advantage he has over the ordinary practitioner in the treatment of chronic dermatitis. I do not here propose to go into the details of the technique of their administration, but will only say that given in doses not exceeding half a Sabouraud pastille at fortnightly intervals with a maximum of three doses in succession, and then at least a month's interval before they are used again the results are very gratifying. What is more, given in this way I have never seen the least harm result, although I am well aware of the terrible effects that have been caused by x rays injudiciously administered.

(I have said nothing of the internal treatment of dermatitis—that is another and less satisfactory story.)

THE STREPTOCOCCAL DERMATOSES

WITH SPECIAL REFERENCE TO THOSE OTHER THAN IMPETIGO

BY

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It is to the work of Sabouraud that we owe most of our knowledge of the streptococcal diseases of the skin, but though he has for more than thirty years expressed his emphatic views on the subject both in teaching and in writing, and though his doctrines are largely accepted in France at least, they are only slowly percolating into dermatological teaching in this country, and time and again one comes across, in published papers and in textbooks, a remarkable ignorance of his work. Speaking of chronic streptococcal infection of the scalp he states[1]: "It was and is still confused among the impetiginous eczemas (?) or has even, by a flagrant impropriety of terminology, been called seborrhoeic eczema." Such confusion is extremely common in this country, and as I have for the past six years endeavoured to study my cases of streptococcal infection from Sabouraud's point of view, and am convinced of the correctness of his teaching, I have thought it worth while to review my records of these cases in some detail.

Briefly, Sabouraud considers as streptococcal in origin the following diseases: *impetigo* ; certain forms of *intertrigo*, especially of the fold behind the ear ; a more or less extensive form of *dermatitis* seen typically on the scalp but with possible extension more or less all over the body with a predilection for the folds ; and *pityriasis alba*, "dartre volante" of the French. His bacteriological research has not taken him beyond the recognition of the presence of streptococci in cultures from these lesions, and when I[2] endeavoured to proceed further in the identification of the streptococci responsible for these diseases it became evident that, while a haemolytic streptococcus—a streptococcus as great in haemolytic power as that responsible for surgical affections—was recoverable from the acute streptococcal infection of the skin we know as impetigo, from the other conditions—intertrigo, dermatitis, and pityriasis—an entirely different type was isolated—namely, an anhaemolytic streptococcus. It is noteworthy that these conditions, though they may be acute in onset, tend to run a chronic course, and may persist for years. I do not intend to say much about impetigo, as I have little new to offer. That it is a streptococcal disease is now generally recognized, and with appropriate treatment it ought to be cured in ten days or so.

Streptococcal Dermatitis: Symptomatology

The typical lesion in the other type of infection is that of the fold behind the ear—an intertrigo. In mild cases it may not be noticed till the ear is pulled forward, when a red weeping surface is disclosed. The lesion is greatest