On the treatment of chronic eczema by glycerole of subacetate of lead / by Balmanno Squire.

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TREATMENT OF CHRONIC ECZEMA

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GLYCEROLE OF SUBACETATE OF LEAD.

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BALMANNO SQUIRE, M.B. LOND.

SURGEON TO THE BRITISH HOSPITAL FOR DISEASES OF THE SKIN.

(*Reprinted from the "Medical Times and Gazette" of March 18th and 25th*, 1876.)

London:

J. & A. CHURCHILL, NEW BURLINGTON STREET.

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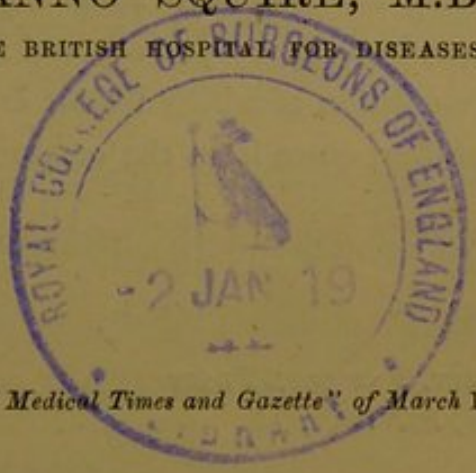

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THIS short paper has been reprinted from the periodical for which it was written because it has chanced to attract some attention on the part of practitioners, and through them of pharmacists, so as to render it probable that its publication in a separate form might be a matter of convenience. I venture, therefore, to hope, whatever acceptance my views may meet with, that my attempt to improve the treatment of chronic eczema may be regarded with indulgence. I have only to add here, that my advocacy of the remedy I recommend has not been undertaken until after long experience of its use, both in my private and in my hospital practice, and that the condition of which I treat is the one with which I am the most familiar, since it is the commonest of the diseases of the skin.

B. S.

9, WEYMOUTH STREET, PORTLAND PLACE,
April, 1876.

ON THE

TREATMENT OF CHRONIC ECZEMA

ANY one who ventures on uttering any general direction for the treatment of eczema embarks on rather a wide sea. I need not apologise, therefore, although the direction I have to describe is a very simple one, for entering into some explanation of why it should probably be a useful, and equally of why it should probably be, at the least, not a harmful one. My reasons for this detail are two. In the first place, I have fully ascertained, to my own complete satisfaction, that the remedy I advocate is serviceable, and generally preferable to the remedies commonly employed; and to this, of course, I have to add that the remedy in the shape I recommend it is new —that is to say, so far as I know, it has never been employed in a methodical manner, with a view to

testing its general value; indeed, as I believe, it has never been tried at all. In the second place, the advocacy of such a plan of treatment as the one I advise is heterodox to general professional belief, not only as to the probability of its doing any real good of itself, but also as to the likelihood of its ending in anything else than positive harm.

For example, it is widely believed that chronic eczema, inasmuch as it is a "blood disorder," must necessarily be healed by some internal means—that is to say, by some remedy taken by the mouth and so conveyed to the intestinal canal, whence it may be diffused throughout the tissues generally, and so produce some "alterative change;" or (for ideas on this matter, though firmly rooted in the general belief, are nevertheless wanting in definiteness) that the remedy should, by acting on the secretions—preferably the alvine or sudatory secretions—purge out some *materies morbi*, which may be the accredited cause; or again, that some specific—arsenic for preference, or even mercury, or antimony, or a good many others—should serve as a specific antidote to the disease. The always confessedly unknown special cause of eczema is, orthodoxically regarded, something which it is one's duty either to neutralise or

destroy within the body by means of some antidote, or to remove in a state of incorporation with some visible and tangible secretion of the body, which has to be augmented in quantity, so that it may serve that purpose. Those who, imbued with such convictions, are nevertheless more definite in their belief than the majority, have cherished the conviction that some one of the more familiar dyscrasiæ is at the root of the matter: thus, "gouty eczema" is a disease which is established in nosology; so, again, "scrofulous eczema" may often be heard of. But I refer to these theories only in so far as they affect the treatment I recommend; and I do so, not for the present in any way to dispute them, but only that I may meet them with a sweeping assumption as to their bearing on *chronic* eczema—an assumption which I put forth as one that clinical experience, so far as I can interpret it, has originated in my mind —namely, that whatever may be the original cause (the *fons et origo*) of eczema, and whether that cause be but one or many, such cause or causes are not, so far as I can learn, continuous and incessant during the whole period of a long chronic attack of the disease. I believe, in short, that after a certain comparatively brief duration of the disease, *that*

original cause, whatever it may be, ceases to operate; and that after that time, whatever may be the precise proper limit to assign to it, the disease is perpetuated by an acquired condition or habit of the integument, which is a second nature, and on which alone, in the majority of cases, the chronicity of the disease depends. To borrow examples (which, like all examples, are only very imperfect parallels) from other departments of medicine—and here I speak, of course, only under correction,—I believe it is an established fact in ophthalmic surgery that the extreme chronicity, from one point of view, of "rheumatic iritis," that is to say, its proneness to relapse at comparatively short intervals, lies in the fact that in such cases it has never been completely cured; in short, that a second, perverted, nature has become established. The high degree of development that eye-surgery, the most advanced of the special departments of medicine, has achieved, enables us to explain that fact in something like detail, and it comes out now that this kind of chronicity of the disease is not owing to any continuous rheumatic disposition of the patient which has been constantly displaying itself by an attack of inflammation of the eye each time that that lesion becomes pronounced,

but because the first attack in such cases has left behind it the condition known as "synechia posterior," that is to say, bands of plastic adhesion between the iris and the lens, which now and again, by the traction exerted on them by the muscular iris in its movements, set up irritation, and so of themselves, independently of any return of the original cause, perpetuate or renew the mischief. I might adduce many other examples, all of them more or less unsatisfactory, as complete parallels, but all of them, nevertheless, illustrating the position which I take up. However, I have, in the case of chronic eczema, a more clinching illustration in the circumstance that I myself and many others who have published their experience have found that local remedies are of themselves fully sufficient to cure the disease without medication of any other kind whatsoever. Here I may fully admit that a person who has had one attack of eczema, even after he has been completely cured of that attack, will by no means find himself thereby exempt from the possibility of another attack at some future period; on the contrary, he will often find that he may have a recurrence of his disease, just as a man who has had an attack of rheumatic fever (acute articular rheu-

matism) may have another attack or not, with a probability, arising on account of his first attack, of successors to it. But I have said enough to show what apology I have for advocating a mere local remedy as serviceable in the case of chronic eczema. Many of the profession are well content to employ local remedies in that disease, and even to place considerable reliance on their instrumentality: of such local remedies, not to enter into wide detail, by far the most popular in this country is the benzoated oxide of zinc ointment. I take it that more of this ointment is prescribed in the treatment of chronic disease of the skin within the United Kingdom than of any other kind of ointment. I feel sure that most practitioners have used a larger quantity of this ointment in the treatment of chronic eczema than they have of any other local application. Of late years, however, this popular application has had a rival in the unguentum diachyli, which has been adopted from Vienna—a dilution of diachylon-plaster, with olive oil to bring it to the consistency of ointment. Neither of these applications would have become so generally used unless they possessed some efficacy. I have tried them both very often indeed, and I quite know them to be useful remedies. How-

ever, long before diachylon ointment had become popular over here,—certainly long before I myself knew of it,—I had endeavoured to find something more efficient than the zinc ointment, which I had often found to fail of anything like efficiency, and I thought I had found this in lead ointment; I accordingly tried the acetate of lead ointment of the Pharmacopœia—that is to say, a mixture of the powdered crystals with lard. I soon, however, had reason to think, on trial, a mixture of the subacetatis plumbi liquor (Goulard's extract) with lard a more efficient application by far. At length, however, I took to using glycerine in place of lard as a vehicle for applying that remedy. I had previously tried water, in fact, lead lotion of various strengths. Lead lotion of moderate strength (ʒ ss. ad ℥vj.), used as an evaporating lotion, is, indeed, in my experience, one of the most excellent applications for acute eczema; but in chronic eczema I have found it of very little service. Here, lead ointment becomes much more valuable. I venture to say that I feel sure, from ample experience, that lead is an infinitely more suitable agent in the local treatment of eczema than zinc. Lead, however, has been but little used in this country for the purpose. The agent that has

been, and still is, chiefly in vogue for this purpose is zinc. It would not be untrue to assert that for some time past—how far back that time may reach I am unable to say—the two principal prescriptions for skin disease in this country have been zinc ointment and zinc lotion. As to the zinc ointment, it is a tradition that it must be *benzoated* zinc ointment. It is probably not generally known to prescribers that this stipulation is a very immaterial one, and from one point of view even a disadvantage. The addition of the bezoin is simply to preserve the ointment (somewhat imperfectly, however) from becoming rancid when stale ; and this lame safeguard is apt to induce the pharmacist to keep it (since it is much in demand) in stock, whereas ointments of any kind should always be made fresh, and prescribed in such moderate quantity that they may always be expended rapidly, for no artificial preservation of them will enable them to bear comparison with the fresh preparation. As to the zinc lotion, it has been the fashion to colour it with calamine, and the same kind of tradition has preserved the erroneous belief that the calamine is in some sort an essential therapeutical ingredient of the lotion. Lead, however, is, I am well persuaded, by far a more soothing, and at

the same time a much more astringent application than oxide of zinc. I have found that it unquestionably allays the itching, restrains the discharge, and diminishes the hyperæmia of eczema; in short, it *cures* it far more speedily than zinc does. It is of the best mode of applying this efficient agent in the treatment of chronic eczema that I have now more particularly to speak. As a lotion it fails, and I think it is not difficult to see how this happens. The lotion fails to keep the surface moist: the warmth of the body speedily causes it to evaporate; that is to say, the water passes off as vapour, and the lead is left on the surface of the comparatively dry gummy layer of viscid exudation which is characteristic of eczema. Thus the remedy is precluded very considerably from influencing the skin itself, and is deposited simply on the surface of the scab, however minutely dotted and however thin that scab may be.

Lead ointment is far more efficient. It preserves the moisture of the secretion, and so permits of the passage by osmosis of the remedy from the ointment through the secretion to the surface of the skin.

I have already declared my experience to be in favour of ointment made with Goulard's extract, in

preference to the Pharmacopœial preparation made with the powdered crystals of the solid acetate, but I must also declare my experience to be very greatly in favour of either of the above to the Viennese preparation (recently imported) of diluted diachylon plaster. The latter is, to begin with, a very uninviting, putty-like substance, quite like putty softened by admixture with oil. This would be a small matter, but pharmacists are aware of the real value of a difficulty of that kind, and would at once exclude a preparation of this sort from the category of "elegant," that is to say, acceptable, preparations. But it does not end there. This "ointment" (unlike ointment of any other kind) may be plastered on the skin with some pains, but, like putty on unpainted wood, it will not stick until at length it has slowly liquefied and so flows over the surface. It is even difficult to get it on the finger so as to apply it; it cannot be got out of the pot as ordinary ointment may be, by a mere scrape of the finger, but has to be dug out as an inadherent stringy morsel, which is difficult to retain as well as perplexing to deal with; and, in addition to its pharmaceutical defects, it is vastly inferior in its therapeutical results to an ointment made with Goulard's extract. It may be to

some surprising to say that an ointment made with the latter may be quite easily varied in strength from a few minims of the sub-acetatis plumbi liquor to as much as a drachm of it to an ounce of lard, the larger quantity of the aqueous solution being easily incorporated with so small a quantity of grease. However, I have found that for the majority of cases of chronic eczema greasy preparations of any kind are *pro tanto* a disadvantage: they appear to act in a minor degree in the same disadvantageous manner that water-dressing covered by oil-skin does. I was accordingly induced, when I had fairly satisfied myself that lead was a good agent, and that the basic acetate of lead was a good form of exhibiting that remedy, to seek some more favourable vehicle for exhibiting it in cases of chronic eczema than grease of any kind had seemed to me to be (I had tried, amongst other vehicles, oil). Glycerine has proved in my hands far superior either to oil or water as a vehicle for applying remedies in the case of chronic eczema. It has neither, so to speak, the desiccating effect of water nor the macerating effect of grease. Its viscidity is about parallel with that of the viscid secretion proper to eczema, so that, in smearing it over, it is readily miscible with it, and

while it preserves the surface moist, it readily incorporates itself, and, more than that, undergoes true admixture or diffusion (osmosis) with the viscid aqueous solution of lymph and albumen which is exuded slowly but continuously from the surface of the diseased skin. Thus it conveys the remedy held in solution by it more freely to the actual surface of the skin itself. At the same time it fulfils an indication which is less perfectly attainable by the use of ointment; it adheres more closely to the comparatively moist surface of eczematous skin than ointment does, and so is less readily rubbed off by accidental friction. In this way it more efficiently preserves a uniform suppleness of the skin affected by eczema—a matter of importance in more than one respect, for not only is the patient relieved from the hide-bound feeling which is one of the chief distresses of chronic eczema, but the chapping and cracking of the skin, caused by the partial splitting on every movement of the body of the inelastic varnish formed on its surface by the partially dried-up exudation, is avoided; and this latter phenomenon is one of the main aggravators and perpetuators of the eruption.

That glycerine possesses ample capacity for pene-

trating serous secretion may be proved by repeating an experiment which I have often had occasion to make in prosecuting microscopical researches into the minute anatomy of the morbid skin. I have been in the habit often of preserving small portions of skin (removed by operation) in glycerine, so as to preserve them from putrefaction till I had leisure to examine them. It will be found that in a short time a piece of skin so immersed has undergone throughout the whole of its thickness a very marked change in its physical characters. It has lost its whiteness and its opacity, and become of a light yellowish-brown colour and semi-transparent, assuming the aspect but not acquiring quite the hardness of a piece of dried tendon; at the same time it has become curled up at the corners. It feels very considerably harder than before. If cut with a knife, it "cuts" something like slightly warm glue or like an old and somewhat hardened piece of candied orange-peel, which, on the whole, it rather resembles; at the same time it has notably diminished in size. In fact, the glycerine has almost completely deprived it of all its water, which has become diffused throughout the glycerine, while the glycerine itself has thereby become accurately

applied to every nook and crevice of the piece of skin in the closest possible contact. In the living skin, of course, even when it is completely raw, desiccation of this kind does not take place on the application to it of glycerine, because the skin is constantly fed, on its under surface, by an inexhaustible supply of aqueous fluid; but it is clear that an agent which has so obvious a capacity for absorbing watery fluids into its substance must be far more capable of bringing medicaments already dissolved in it into much closer juxtaposition with a serum-secreting surface of skin than it is at all possible to attain by applying to the skin the same medicaments incorporated with grease, whether in the shape of lard or oil. Grease of any kind, so far from absorbing watery fluids into its substance, is proverbial for resenting any attempts at its admixture with them. "But, then," it might be urged, "why not use water? water surely is miscible enough with aqueous solutions whether serous or other; the process of osmosis would surely convey the water, and with it the medicament it may contain, into the substance of the viscid film of serum, and so to the surface of the skin itself." This is true; but then, as I have said before, desiccation rapidly takes place, both of

the lotion and of the serum, and so an impermeable film of dried scab becomes (fatally to the purpose in view) interposed between the skin and the remedy. "Then, why not," it might be urged, "cover the lotion applied on rag with a piece of oiled silk? *that* would prevent desiccation." To this the reply is simple—the experiment has been tried often enough, and I have had frequent occasion to note the result: such a plan invariably aggravates the disease very markedly; and more than that. For example, if the patch of wet rag and oiled silk be larger than the patch of disease over which it is applied, it leads rapidly to an extension of the disease. Thus, I have often seen a large round patch of chronic eczema very speedily converted into a much larger square patch, the size and shape of the larger patch corresponding very accurately to the dimensions of the piece of oil-silk which had been kept applied. The skin under such circumstances becomes thoroughly macerated; and this condition evidently is more prejudicial to a favourable issue in chronic eczema than even its condition as it exists when it is left to itself. Unlike a mere aqueous solution, a solution of the remedy in glycerine permits of its continuous application, while at the same

time the skin is preserved supple and *moderately* moist. Unlike an aqueous solution reinforced by a covering of oil-silk, a solution in glycerine permits of a certain degree of continuous evaporation from its surface of aqueous vapour. In short, glycerine appears to have the property of supplying efficiently the most important of the physiological actions of the lost epidermis—namely, of conducting in like manner with the epidermis the process of the "insensible perspiration." When spread out in a film on the raw skin, glycerine fulfils the same office that the epidermis does, in continuously absorbing water on its under surface, and permitting its constant escape from its upper surface in the shape of aqueous vapour, but in such moderate quantity as shall serve to keep the skin itself fairly and properly moist. In addition to this useful quality may be added another. Very many patients have an extreme dislike to being smeared over any considerable portion of their surface with grease of any kind; not only does it make their clothes in a mess—which to a person of cleanly habits is often extremely distasteful—but it induces a peculiarly uncomfortable sensation which is a source of annoyance. Whereas glycerine, even when applied freely over the greater

portion of the entire surface, is a comparatively cleanly application, and excites no other sensation than a feeling of slight stickiness, which is far more readily put up with, and is eagerly preferred to the unpleasantness of a general inunction. Even this slight disadvantage completely disappears when, as should always be the case, the glycerole is not profusely applied, but is smeared on in very moderate quantity at each application, and renewed as often as may be demanded—generally about three times a day.

I have now, perhaps, said sufficient to show what fair probabilities of usefulness the preparation I advocate presents, apart from my own personal experience of its therapeutical efficacy.

It remains for me still to dispose of some natural fears that I have reason to know it will certainly occasion. When, a few years since, it was suddenly discovered that the "hair-restorers," which were, and are still, so very extensively used, consisted chiefly of a solution of acetate of lead, with no other qualification than the addition of some glycerine, and a tolerable amount of finely-divided sulphur, considerable alarm was caused, and a correspondence in the *Times* ensued, in which several medical writers

took part. These commented on the alarming manner in which the health must surely, if slowly, be undermined by the continuous use of such an agent, and pointed out with some care how many poisonous doses of lead were contained in each bottle of the stuff. This attracted some attention at the time, and, as I had frequent occasion of learning, created a widely-spread fear of the articles in question. This *à priori* dread was, however, perfectly gratuitous: the "hair-restorers," however little good they may do to the hair beyond slowly dyeing it of a dirty-brown colour, certainly do no harm to the system. I have known persons who have long persisted in their use without exhibiting any of the symptoms by which it may certainly be decided whether lead in any injurious, or even in any tangible, quantity has entered the system—that is to say, they have presented no blue line at the margins of the gums; they have not suffered from colic, or even from painless constipation in the least degree; they have not experienced "wrist-drop," &c. So, again, with those who have copiously used the "unguentum diachyli;" and so equally with those who have smeared over a large portion of their surface the preparation I am recommending. It is not

commonly appreciated how widely the two skins of the body (the "leather-skin" and the "slime-skin," as the German anatomists call them) differ in their capacity for absorption; or, perhaps, as one ought more accurately to put it, how very different the absorbent capacity of the *epithelium* of these two skins proves to be. That of the "slime-skin," or mucous membrane, is constructed for the obviously express purpose of absorbing almost any absorbable substance that may be brought in contact with it, and that in a surprisingly rapid and complete manner; whereas that of the "leather-skin," or skin proper, is constructed so as to interpose an equally surprising and almost insuperable obstacle to the absorption of any ordinary absorbable substance. It is true that by artificially removing the epidermis, by means of any blistering substance, we may temporarily alter this condition by depriving the "leather-skin" of its efficient protection, and thus approximating the condition of its epithelium to that of the "slime-skin," so that it becomes capable of the property of absorbing matters into the system; but the condition of the skin, even in the rawest phases of chronic eczema, is very far from being such as is capable of evincing this

property. By this I do not mean simply that it *ought* to be so, but that repeated and careful observation conclusively proves that it *is* so. Nevertheless, I have often heard fears expressed by practitioners whom I have had the pleasure of meeting in consultation, that such a remedy as the one I am speaking of must probably be a very dangerous one for their patient to use. However, it is not lead alone to the absorption of which the skin offers so marked, and indeed so surprisingly perfect, a resistance. Sir Thomas Watson, in his classical treatise on the Principles and Practice of Medicine, refers to the resistance of the skin to the absorption of mercury, quoting thus a letter written to him by Dr. Bowling, of Adairville, in Kentucky :— "The applications [of *unguentum hydrargyri nitratis*] are to be made twice a day [for a week]. I have never known the constitutional effects of the mercury to be developed in this treatment, save in a single instance, and then but very slightly." Now, I myself have also frequently ordered general inunction with strong mercurial ointment—from seven grains to as much as a drachm of the nitric oxide of mercury to the ounce of lard—without ever (save twice) producing, and even then in quite a

trivial degree, any of the constitutional symptoms of mercury. These two cases, inasmuch as they are the exceptions to many hundreds of such inunctions, may fairly be placed to special idiosyncrasy.

I have now disposed, as far as I can do so in writing, of any fears that may be entertained as to the safety of my application. It is necessary that I should here give some definite explanation of what condition it is that I have found to be so considerably benefited by its use. "Chronic eczema" is a term that has so many different significations, that I must needs show briefly how I myself employ it for the purposes of this essay. I do not, for example, include what I may perhaps sufficiently describe by the names of lichen, strophulus, prurigo, or pityriasis; nor do I include what, with more or less justification, has been termed "dry eczema." I mean here by chronic eczema only those persistent conditions to which the term was in the earlier part of this century limited, and which come more properly under the literal signification of the word eczema—that is to say, those which are characterised by a colourless, viscid sweating from the skin: but equally whether that sweating be abundant, so as to keep the surface of the skin bathed in slime, or so as

to concrete in large scabs; or whether it be merely scanty, and occur even in minute, discrete, but more or less clustered spots, so as to present either only thin, small, transparent, dry, gum-drop-like deposits, which on detachment are found to be concave on the under surface, and conceal a small drop of viscid exudation; or, as the case may be, small, raw, scattered, but more or less clustered, weeping excoriations. And I include also that condition in which numerous but tolerably minute moist cracks in the reddened surface are present. I am not here attempting to give either a definition or a complete description of chronic eczema, but am simply aiming at conveying, in general terms, to those to whom the disease in its various phases may be familiar, what phases of that disease I am referring to. It will be seen, I trust, that I am limiting myself to those conditions of eczema (however much or little ought properly to come under that heading) in which there is, either obviously or substantially, a moist and viscid exudation from the skin, and am excluding those in which there is only a mere papulation, or a mere plastic thickening of the skin, or a simple dry scurfiness of its surface; that, in short, I am referring to a wet disorder, and not to a dry one.

I now come to some pharmaceutical details, which require only a brief description.

The remedy is manufactured—or rather, I should say, the stock which forms the basis from which the remedy is prescribed is made—in precisely the same way as the "plumbi subacetatis liquor" of the British Pharmacopœia, only that glycerine is used in its manufacture instead of water; and to this I have to add that some simple directions as to temperature have also to be followed. It is thus prepared: Take of acetate of lead, 5; litharge, $3\frac{1}{2}$; glycerine, 20. Heat for half an hour in a boiling glycerine bath, constantly stirring, and filter in a gas-oven or other kind of heated compartment. The result is a perfectly clear and colourless liquid, of a somewhat more viscid consistency than pure glycerine. Physically, it is a stronger solution than the Pharmacopœial "plumbi subacetatis liquor," inasmuch as the insoluble white residue left by the Pharmacopœial process is nearly double by weight the residue left by the process above directed. Therapeutically, however, the glycerine preparation is a far less active application considered absolutely than the "liquor," besides that it differs markedly in several essential respects in the *kind* of effect

produced by it. It does not appear to be known that equal strengths of solution in water on the one hand, and in glycerine on the other, of any remedy used locally, are very different as to the degree of effect exerted on the skin, the aqueous solution being in every case a far stronger application than the glycerine solution. The reason of this is very obvious; the rapid evaporation of the water under the influence of the heat of the body very soon concentrates the aqueous solution; whereas the comparatively fixed character of glycerine does not allow of any notable evaporation of the solution.

Two of the pharmaceutical details of the preparation of the glycerole demand a little explanation. The ingredients are not directed to be boiled over a naked flame, because, in boiling, glycerine undergoes decomposition, evolving acid fumes. On the other hand, they are not directed to be heated in a boiling-water bath, because, when thus warmed, less of the powder is dissolved than when they are heated in a boiling-glycerine bath.

Filtration in a hot chamber is recommended, because at the ordinary temperature it would probably take about a week to filter even a small quantity of the solution, whereas when heated the

solution temporarily looses its viscidity, and speedily runs through the filtering paper.

I have called the preparation I have above described the "stock" from which the remedy is prescribed, because as above prepared it is far too strong for general use, although it may occasionally, in certain cases, after one's way has been carefully felt by the previous use of milder strengths of solution, be with advantage used undiluted. I find that a drachm of it to the ounce of pure glycerine is about the strength which is usually expedient. Sometimes half a drachm to the ounce is quite sufficient. On the other hand, two drachms to the ounce will sufficiently often produce a better effect than one drachm to the ounce will; and greater strengths progressively employed up to the full strength will more rarely be found expedient. The skilful use of this remedy, simple as is its composition, is like the skilful use of a very simple instrument. Some people can achieve wonders in wood-carving with a penknife: some cannot. To determine at sight what conditions are favourable to its employment, and what are not, is one matter; to pronounce what strength of it should be used is another, and perhaps a less easy affair, but it is of

no less importance as concerns the result. Too weak an application will do scarcely the least good: too strong a one will do positive harm. Practical experience in the use of the remedy will alone suffice to impart judgment in these matters. But these remarks apply with equal force to every local application of any kind that may be employed in the treatment of skin diseases. I introduce them here merely to explain why I believe that any attempt at minuter detail than I have already entered into on this head would probably be an idle one.

I ought to say, moreover, that I do not profess that this remedy, any more than any other kind of remedy, shall be invariably successful even in the class of cases to the treatment of which it is best adapted; and here I may quote Dr. Devergie, who, after a long experience, found himself constrained to write thus:—"Dans une affection cutanée qui exige l'emploi des émollients, le médecin ne saura dire, à première vue, si les cataplasmes, les lotions, ou les poudres pourront être efficaces; il faut nécessairement qu'il en fasse l'essai." In short, nothing succeeds invariably but success; but I am none the less for that disposed to modify my original proposition—

namely, that glycerole of the subacetate of lead is a far more generally useful application for chronic eczema than either the benzoated oxide of zinc ointment, the calamine and oxide of zinc lotion, or the unguentum diachyli. One disadvantage of the more popular two of these—namely, the two ointments—is that no variation of their strength seems to have been contemplated by those who have advocated them; nor does such an idea appear to have presented itself to any of the numerous adopters of these two preparations. It is accepted as of the natural order of things that benzoated zinc ointment must consist of one part of oxide of zinc to five parts and a half of benzoated lard, just as water must consist of certain inflexible proportions of oxygen and hydrogen. I never heard of any one who thought of tampering with these, the only possible (?) proportions. Just so with the unguentum diachyli. The composition of this preparation must have less variation than even that of the proverbially constant mariner's compass. It must consist of equal parts of diachylon-plaster and oil, or else, equivalently, of one part of litharge to four parts of oil, according to the manner in which it may be chosen to make it. Now, if I were to be called

upon to name some solitary useful result as the product of a twelve years' study on my part of the effect of remedies on diseases of the skin, I should prefer to say that I had learnt to know that it is necessary to vary, and that very considerably, the *strength* of applications of any kind to the diseased skin; and that not only in respect of the use of the same application to different kinds of disease, but to the same disease as existing in different individuals, and, furthermore, to the same disease in the same person, at different phases of its progress. It will not be too much, therefore, if I claim for the preparation I am pleading for, that it admits of a ready and expeditious variation of its strength of action without alteration of its consistency, or, indeed, modification of any of its useful physical qualities, by the immediate addition to a small portion of the stock solution of any required quantity of glycerine —an advantage of no small convenience in country practice, or, indeed, in apothecaries' practice anywhere. The same remark applies also, so far, to glycerole of carbolic acid, or to glycerole of tannin, although the Pharmacopœial preparations, in either case, are far too weak to serve as generally useful stock solutions. I have every reason to think that

the adoption of a solution of the basic acetate of lead in glycerine, such as I have described, would be a valuable addition in the British Pharmacopœia to the other solutions in glycerine that already exist there.

I have but one more remark to add, and that is, that the first effect of the application, even in cases where, both as regards quality and strength, it may be excellently adapted to the condition present, will, to the unpractised eye, seem an aggravation of the disease—that is to say, the eczematous skin will seem to be redder and more inflamed, as well as moister. The moisture will, of course, be readily understood; but I find that the redness is very liable to misinterpretation, and so becomes the occasion of a loss of faith in the remedy at the very outset, and even the cause of it being promptly abandoned. It is due simply to greatly increased transparency of the cuticle, and of the thin scabs or scales, consequent on their infiltration with glycerine, which thus enables the inflamed true skin to shine through them somewhat more vividly. I believe I have forgotten to mention that the skin, previous to each fresh application of the glycerole, ought to be boldly washed with a soft sponge, well moistened with warm soap-and-water.