

Wettsomian Lectures

ON THE

NATURE AND TREATMENT OF ECZEMA;

AND, INCIDENTALLY, THE INFLUENCE OF
CONSTITUTIONAL CONDITIONS ON
SKIN DISEASES.

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LECTURE III.

Treatment of eczema—General indications—Necessity for ascertaining the stage, variety, and complications of the disease present—Soothing treatment always needed in the acute stages; and curative measures, more properly so called, to be used in the latest stages—A detailed account of the general and local remedies called for in the three varieties of eczema, and the proper way and time of using them.

MR. PRESIDENT AND GENTLEMEN,—Eczema is a curable disease, running, as a rule, through certain definite stages—the passage through which we should promote; aggravated by anything that “irritates” the skin itself from within or without; occasionally relieved, or even aborted, in its slighter forms or earliest stages, by soothing remedies; liable to be complicated by accidental occurrences consequent upon the persistence of congestion, such as œdema, induration, atrophy, &c.; modified by constitutional conditions, especially gout, struma, and syphilis; influenced by organic diseases of vital organs—the liver, the kidneys, the heart, the stomach; associated always with a lowering of the general vitality of the system, and not cured by any “specific.” I venture to lay emphatic stress on two of these points—viz., the modification of eczema by different constitutional conditions, and the necessity for adopting a soothing plan of treatment always in the earlier stages of the disease.

There appear to me to be three questions which every practitioner should ask himself when a case of eczema falls into his hands for treatment—Of what variety is it? At what stage is it? And what are its complications?

First, as to variety. It is here that Willan’s division of eczema becomes so satisfactory. Though, as I stated in my first lecture, there are no hard and fast lines between the simple, the inflammatory, and impetiginous varieties of eczema, yet they are broadly distinguishable in the general run of cases.

Secondly, as to stage. If the skin of an eczematous subject be essentially irritable, as I believe, then, whenever and as long as any local inflammation is present, or there is pain, must we soothe. At the very outset of an eczema, sedatives may much abate, though rarely stay the progress of, the disease. This happens in cases of eczema simplex; but as a rule cases run on to the discharge stage. I hold most resolutely that until that stage is passed, and squamation is reached, nothing in the form of a stimulant or irritant should be applied to an eczema. Hence the consideration of the stage of an eczema, in my eyes, has a most important significance. When the stage of squamation has finally set in, the disease may be termed chronic, and we may stimulate. Until that is reached, however, the disease should always be regarded as acute, and be soothed. Perhaps this is the lesson, of all others, to teach in the present attitude of dermatologists in their cure of eczema. Further, when the stage of squamation has lasted some time, as before observed, we may have to treat chronic inflammatory thickening rather than eczema.

Lastly, as to complications. The very last matter mentioned is one of them, but they are chiefly general conditions, or functional disease, and these we shall note in detail in speaking of general treatment.

But I may appear to have said too little in a general way of the internal treatment in relation to variety and stage; I hasten to add, therefore, that it follows from what has

No. 2432.

been said that there is one general rule applicable to all cases of eczema, and that is, that we should attempt to conduct all cases of this disease to the scaly stage as soon as possible. To moderate excessive tissue-change in the skin, and allay the nerve-irritation by general remedies in the early stage, is to aid in this object. But in eczema simplex, no general treatment is requisite, save aperients and common tonics, it may be. In eczema rubrum, dyspepsia, gouty tendencies, and the circulation of effete products in the blood must be altered. But in the case of eczema impetiginodes, the pus-formation is not an evidence of intensity of inflammation, but of a pyogenic habit of body; and whilst we meet eczema rubrum associated with free pus-formation by salines, aperients, and the like, in the earliest stages, we at once, and from the outset, have recourse to cod-liver oil, iodine, iron, and the like, in the impetiginous variety, for these alone control the formation of pus here. We have learnt this, perhaps, empirically, and without giving a thought as to the reason. It will be noticed how Willan’s division of eczema helps us in this matter.

In entering upon details, I shall speak of the acute stages first, and leave the chronic eczema to be specially dealt with by-and-by. Let us first get rid of the treatment of eczema simplex: such as is produced by the action of external irritants—e.g., heat, sand, flour, water, soda (as in washing), arnica, sulphur, &c. Here the disease is localised, and the treatment is practically local also. The familiar instance of the eczema induced in washerwomen and housewives who do much washing, by the action of soda, may serve as a type of this variety. It is true that the attacked are often debilitated, and benefited by tonics; but, as the rule, the exclusion of air from the part, its removal from the influence of the irritant, and the application of some soothing and absorbent remedy, cure the cases. If we use a lotion, which is preferable in the daytime, it is best to employ the following—An ounce of very finely levigated calamine powder, with two drachms of glycerine, half an ounce of oxide of lead, and six ounces of water. This may be applied, after being well shaken up, by means of a sponge or camel’s-hair pencil frequently (five or six times during the day), the powder being allowed to dry on. The air is in great degree excluded by the powdery layer left upon the skin. If there be much swelling, I prefer to use, in addition, some of the lead ointment of the old London Pharmacopœia, thinly spread on rag, and closely applied at night, being kept on with a few turns of a bandage. If at the outset of the disease there be much pain, then poppy fomentations may precede the use of the ointment, and the first application of the lotion in the morning. An aperient or two, with the dilute mineral acids and bitters as a tonic internally, and some fatty preparation locally at the fag end of the attack, suffice to complete all that is needed for the treatment of eczema simplex.

Now we turn to the next clinical variety of eczema in its acuter stages. There is a certain number of cases which seem to locate themselves on the border-land between this variety and eczema simplex. A typical case may be given as follows. A man (or woman), aged forty or so, presents himself at the hospital, and states that he is attacked by an eruption on the head and neck, which gives off a good deal of scurf. On inspection you notice an eczema in the squamous stage, affecting the whole scalp, accompanied by a good deal of irritation, and some slight redness. The eczema may extend down the neck, and there may be patches of the same kind about the arm, or the leg, or the thigh, and sometimes the trunk. The history does not give evidence that any marked inflammatory state has preceded, though the patient says the parts now attacked were hot, red, and discharged before the scales formed. The only thing about the general health is debility. The patient has had an anxious time in regard to his duties or his family; has worked hard and has lived fairly; but somehow or other has lost tone and flesh. He is not up to his usual mark. He looks pale, languid, and thin; his assimilation is bad. Now alkaline baths, cod-liver oil, and the mineral acids, with tonics, quinine, or, if there be much atonic dyspepsia and itching, strychnine, with locally the calamine lotion, and presently a weak tar stimulant unguent, and not mercurial ointments, have never failed in my hands to cure. But the mass of cases falling under this head are more inflammatory, and connected with definite derangements of the general system. Mistake is often made in applying the

term eczema rubrum to an eczema which attacks the bends of the joints only. It should be appropriated to the disease according to its inflammatory character, and not its seat. It is at the same time true that eczema rubrum very frequently involves the flexures of the joints.

Well, supposing that we have a well-marked case of eczema rubrum to treat, let us take the general remedies first of all. I am in the habit of teaching that we should search for one or more of the following conditions: (1) an hereditary tendency; (2) the strumous diathesis and bad feeding (well marked in young life), and strumous taints in the old; (3) simple debility; (4) chronic dyspepsia; (5) gout; (6) nervous depression connected with mental excitement; (7) deficient kidney action, especially in old persons; (8) organic disease of the heart in the aged. How is any one specific remedy, arsenic, to meet all these varied conditions?

(1) Is the disease hereditary? Then a very carefully arranged plan of treatment, dietetic, hygienic, and medicinal, is needed, for here we have eczema with a profound hold on the system.

(2) The strumous habit must be combated wherever it is met with; and, happily, our success is certain if we persevere with cod-liver oil, steel wine, and the like. I will only add here, that wherever we find an eczema in old people in which the pus-formation is altogether out of relation to the degree of local inflammatory action, we should be careful to seek for a history of struma; and even in the oldest persons antistrumous remedies greatly aid in the cure of the disease—at least I find it so. Senile struma is an important state to recognise.

(3) Simple debility is very frequently all that can be detected even in those instances in which the disease is extensive and severe. It may be advisable, even under these circumstances, if there be much local heat, burning, or smarting, to commence with saline aperients, or even small doses of antimony with ammonia; but speedily we should have recourse to tonics. I know none better than the mineral acids with bark; but it is necessary, in order to get the full benefit of the former, to increase the dose—say of the dilute nitric acid, to thirty and forty drops in the dose. At the same time, cod-liver oil is even more useful in thin and spare subjects. Rest from over-work of body and mind, change of scene, good food, and a paucity of stimulants, are also most beneficial in these cases.

(4) Chronic dyspepsia is very frequently present as an aggravant of eczema, and it requires all the tact of the physician to remedy it. It is in these cases that alkalies occasionally do much good in connexion with bismuth, small doses of strychnine, iron, ferruginous waters, or the mineral acids, as the case may be. But the patient must also be carefully dieted. In those of good position the diet must be simplified, the plainest meats be taken, and stimulants avoided.

(5) Eczema often occurs in gouty subjects, and needs a good deal of care, for the gout is oftentimes in an undeveloped form. To use a common term, it “hangs about the patient.” Now, so long as there is uric acid freely circulating throughout the system, so long will it be difficult to make a satisfactory progress with the eczema. If there be marked gouty symptoms, with loaded urine, the ordinary treatment for gout may be used with benefit; but in the so-called “suppressed” forms of gout the value of saline aperients, guaiacum, and iodide of potassium is incontestable. I think highly of such waters as those of Friedrichshall and Marienbad in such cases, in the morning, so as to empty the gastro-intestinal canal freely. The addition of an equal volume of hot water increases their aperient action.

(6) Nervous depression in connexion with mental distress or pure excitement is common as the general condition associated with eczema. The treatment is obvious—nervine tonics. Arsenic is often beneficial in these cases; but quinine, bark, and acids, with the milder sedatives, are better. I quite agree with Dr. Fraser, that in those cases in which there is marked hyperæsthesia, or, to use more homely language, intolerable itching, strychnine does much good. I am supposing that, under all the circumstances named, at the outset, when the inflammatory symptoms run high, salines and aperients are given first of all, in connexion with local remedies, to allay the inflammation. I also assume that anæmia would have its appropriate remedy.

(7) It is very important to attend to deficient kidney action, especially in eczema rubrum of the legs, in old or oldish persons. Some of the best results I have ever obtained have been by the use of diuretics freely given under these conditions, and I have no little faith in the employment of digitalis as one of the ingredients of the diuretic compound. An eczema rubrum will often rapidly improve when the quantity of urine passed rises to a goodly amount from a scant quantity before. The local treatment is, however, of much importance in these cases.

(8) It has fallen to my lot to see a goodly number of cases of eczema, and general eczema, too, show themselves as the first apparent evidence of a general break up in old people, and in these cases I have generally found a dilated and hypertrophied heart—not always, it is true; now and then dropsy has come on, or chronic bronchitis of an annoying kind. The general treatment consists in remedies calculated to prevent or remove first of all the effects of the heart mischief.

You will notice, then, that there are many different disorders of health which we can very definitely fix upon as influencing the course of an eczema, and these must have each their appropriate remedies, used in connexion with ordinary antipyrexials, in the earlier stages of eczema rubrum.

Purgatives I do not think have any special curative effect in the case of eczema; they merely aid the action of other remedies by clearing out the primæ viæ, and so give the liver and kidneys a better chance of eliminating effete products.

But supposing the acute stage to be passed, and the eczema to be getting chronic and scaly, what shall we do as regards general remedies? Here arsenic is really of service in some cases, if the disease is extensive, and markedly scaly—psoriatic, so to speak; if the patient is of the nervous temperament, and there are no marked secondary changes in the skin consequent upon eczema. In those cases where the cellular tissue is involved, and there is a disposition to induration, I think alterative doses of bichloride of mercury and bark of infinite service; and here I agree with Dr. Fraser in regard to this treatment. I have now and then seen cases of eczema rubrum in a chronic state, in which there has been a remarkable puffiness, evidently œdematous, almost amounting, in fact, to a dropsical state of the skin, and this in young subjects. Here diuretics have benefited considerably, in alternation with cod-liver oil, iron, quinine, iodide of iron, and the like.

In regard to the local treatment of eczema rubrum, the lesson we all need to learn is the avoidance of irritants. Now suppose that we have the disease affecting a large part of the body very severely, and that there is great heat and burning of the skin, what is to be done? Perfect rest must be enjoined, and the parts, if not freely discharging, are to be kept excluded from the air in some manner or other. It is not always an easy matter to say what will soothe in any particular case. Bran infusion, or decoction of marsh-mallow or poppy-heads, to which a little clarified size has been added, are very good applications to start with as lotions night and morning. The linimentum aquæ calcis is sometimes efficacious. After bathing the parts in either of these liquids (and we should be careful not to sodden the skin), we may adopt two plans—apply absorbent powders, which help to exclude the air, or the mildest neutral unguents. If there be any discharge, the former are best adapted, and equal parts of starch and oxide of zinc form an excellent powder for the purpose. Dr. Anderson gives a very good prescription of the kind, containing camphor in the proportion of half a drachm or so to an ounce. In the case of the poor, nothing is perhaps so convenient as ordinary whiten-ing, made into a thinnish paste and applied with a brush. But, if powders are used, they should be removed very carefully every twelve hours, and the poppy decoction or thin gruel may be applied for the purpose. When the surface is ceasing to discharge very freely, or not weeping so much, hot, stiff, glazy, and irritable unguents are preferable; but they will disagree if at all rancid. The best I know is the compound lead ointment of the old London Pharmacopœia; this should be perfectly fresh, and never used if it be more than three or four days old. The application must be very carefully made. It should be spread on thin strips of old linen, and these are to be adapted closely to the affected surface. The patient, if possible,

should be really packed in ointment, absolutely to exclude the air. The ointment must be renewed every ten or twelve hours. The benzoated oxide of zinc ointment is also good, but I have a preference for the other. Now, if the simple treatment above described agree, it should be steadily pursued for some time, until the heat, redness, and swelling subside. It may be well to prescribe, in addition to the above remedies, if the irritation is not relieved, an alkaline and gelatine bath each night. I have seen a great deal of harm done by the application of ointments containing mercurial compounds in the inflammatory stage of eczema, and they should be avoided. When the subacute condition is reached, the time has come for the use of lotions, in addition to the alkaline and gelatine baths. I prefer the calamine and oxide of zinc, about half an ounce or an ounce of each, with two drachms of glycerine, and from six to eight ounces of rose or lime water. The parts are bathed with thin gruel, and cleansed twice a day, and the lotion is applied with a piece of sponge or camel's-hair pencil very freely several times in the twenty-four hours. The compound lead ointment may likewise be used if the lotion do not seem to agree. In old people, where the skin is dry, red, and itchy, wet packing on a small scale at night, with dressings of Hebra's litharge ointment, or the benzoated oxide of zinc, to which a small quantity of carbolic acid or balsam of Peru has been added, is serviceable. In these cases the water-dressing, however, gives great relief. But there is still one more point relative to acute eczema: it is the necessity for the removal of the crusts which form, and the prevention of their re-collection. Patients are most obstinate in dealing with this matter. It is most difficult to get them to understand that the remedies are required to be brought into contact with the surface beneath the crusts. The crusts should be removed by rubbing in oil or glycerine, or by poulticing. Once off, it is best, by the use of unguents, to prevent their re-formation. Even in the case of the scalp, the skin can be kept clean and free from crusts if a little trouble is taken in smearing the ointment fairly over it. It is proper to cleanse with warm water and white of egg once a day at least. I seldom use any other remedies than those already enumerated for the acute stages. In the transition between the acute and the chronic forms of disease, where there is a little weeping, lotions of calamine and oxide of zinc are still the things to which I trust. When, however, the discharge is ceasing, if there be a relaxed and semi-livid hue from congestion of the skin, especially if a whole leg or arm, for example, is affected, the best possible results are to be obtained by the careful application of diachylon spread on thinnish leather. Where the circulation remains languid, I sometimes use a solution of caustic in nitric ether. So much for acute eczema and its treatment by soothing remedies.

Now, the moment the discharge feature lessens, the swelling goes, and squamation approaches, the disease is regarded as chronic; and I begin a very different and an active kind of remediation. As regards general remedies, antiphlogistics, active aperients, antimonials, and alkalies give place, unless there be any special indications for their continuance, to tonics, so-called specifics, and medicines for diathetic conditions. These I have referred to. I must speak especially of the local treatment. For convenience sake, I divide the instances of chronic eczema which are to be treated into three groups:—The first, in which the disease is slight, the textural alteration more or less superficial, and the scaliness distinct, but in which there is no crusting; in fact, a slighter form of eczema squamosum. The second, in which the scaliness is very well marked, and in which there is a good deal of infiltration into the skin, with occasional weeping, and a tendency now and then to the formation of crusts. The third, in which there is considerable thickening of, and infiltration of serous or plastic matter into, the diseased surface, in which itching is marked, and the eczema assumes a papular aspect. Astringents and absorbents do for the first class of cases, nothing else is needed; tarry compounds for the second, which approach psoriasis in aspect; and the so-called soap treatment is best adapted to cases in the third group. The use of astringents—such as weak lotions of sulphate of zinc, alum, borax, and applications like glycerol tannin—often suffice to complete the cure of chronic eczema where the affection is mild; but experience shows that mercurial preparations

are equally efficacious, and custom has given them preference in these cases. I use generally the nitric-oxide-of-mercury ointment, or one composed of five grains of the white precipitate to the ounce, or citrine ointment diluted with five or six parts of adeps, with or without oxide of zinc, to slight scaly eczema of the scalp, the face, the legs, ears, and other parts. Occasionally a weak solution of nitrate of silver has seemed to me to do wonders. I cannot say that I like sulphur, having seen so many cases aggravated by its most injudicious use. Where the eczema approaches in aspect to psoriasis, we may have recourse to the aid of tarry preparations, with excellent results, because all that is needed is to rouse the skin by stimulation to healthy action, and tarry preparations are admirable stimulants. It is no bar to the use of tarry compounds that itching is present, but rather the reverse. I do not say that tarry preparations are not of service in other forms of eczema, but *par excellence* are they beneficial in their action in the quasi-psoriatic eczemata. But it is not always a matter of certainty to say whether tarry compounds will agree well with an eczema. To a certain extent we must be guided by experiment. This we may say, that in those instances in which there is much dry scaliness, accompanied by obstinate itching and the formation of true papules, they should be tried. I confess that I have a preference for the pyroligneous oil of juniper over all other similar preparations, and use it in the proportion of one to four drachms to the ounce of adeps. The liquor carbonis detergens and oleum fagi, however, are good. I do not find myself so firm a believer as some in the virtues of carbolic acid as a panacea for all skin affections. Tarry preparations must be applied to the real diseased surface; that is to say, we must, by water-dressing or greasing, get away all scales and scabs from eczematous patches before using the remedy. Now, it is acknowledged on all hands, as indicated before, that tarry compounds disagree with many cases in which *a priori* they would be thought to agree. I have seen eczema often aggravated, and even tar acne induced. I have said they are most efficacious in the papular aspect of eczema: by that I mean, the truly papular stage of eczema. In my second lecture, you will recollect I stated that dermatologists had not made proper distinction between the true papules of eczema and erected and congested follicles; and this brings me to notice one point upon which I lay great stress in the treatment of eczema. Whenever there is a papulation around an eczema which has been much inflamed, we should suppose at once that the follicles are irritated and congested. A careful examination will very soon tell if this supposition be true. If so, we conclude that there is considerable perversion of the innervation of the integuments; that the skin is very irritable, in fact, and that any stimulant treatment is sure to do harm; that, notwithstanding the eczema-patch itself is dry and scaly, the treatment must differ essentially from that adopted in similar cases, because of the indication afforded by the follicular congestion. In these cases the strapping with diachylon acts admirably. I believe that it is from the circumstance that tarry compounds have been used without distinction as to the diverse nature of the cases which make up papular eczema, that uncertainty exists as to their action. If we recognise the difference between true papular eczema and the condition induced by follicular congestion, we shall be much more cautious in our use of tar for the future. We must be specially careful in our use of tar in cases of eczema rubrum, and should abandon it if it increase rather than allay the itching, if it augment or induce any discharge, or lead to swelling or redness of the skin.

In the case of eczema affecting the fingers and toes, where there is no little pain and heat, with fissuring, it is a good plan to soften up the parts with some simple ointment—the benzoated oxide of zinc,—and then to dress the parts carefully with diachylon plaster cut up into strips and adapted to the surface. If the cracks are very severe, the application of nitric acid will be decidedly beneficial. Where there is much thickening, the soap treatment, to be described directly, should be had recourse to.

Thus far I have spoken of simplest chronic eczemas in their scaly stage, and of those instances of chronic eczema arising out of eczema rubrum, especially in which there is slight infiltration, and therefore some thickening, and also squamation; but there is yet the treatment of the third

form of chronic eczema to notice. The cases to which I now refer are all those in which, as I have said before, the results of chronic inflammation replace, as it were, the eczema. As a consequence of the antecedent inflammation we have infiltration of plastic or serous material into the tissues of the affected part, with induration, hypertrophy of the cellular tissue, warty papillary growths and the like, culminating in false elephantiasis (Arabum), or more properly bucnemia. In the less severe cases, blistering and the soap treatment are the two chief means of cure; and I particularly wish to urge practitioners to use the latter more frequently in such cases, and those to which I now refer. Some dermatologists use potassa fusa, iodide of mercury, or iodine, to cases of chronic eczema with much thickening. But I do not recommend these; and we must remember that we may lose our patient very readily if we use too violent measures. I do not, for this reason, very much like blistering. Mr. Gay tells me, however, that in his hands it has proved most beneficial; and he is not singular, I am aware, in this experience.

As I have said before, the soap treatment is the one I prefer, in the general run of cases. Hebra has done essential service to therapeutics in bringing this mode of cure so prominently before the notice of the profession. The way to use the soap is as follows. Take a small portion of soft soap, and rub it freely into the thickened patch by the aid of a piece of flannel, wetting the latter from time to time, as Hebra says, to make it lather. When distinct soreness is felt, the inunction should be stopped, and the part wiped fairly dry. The part is then to be very carefully covered with some mild ointment spread on linen, and in such a way that air is entirely excluded. The best is the litharge ointment of Hebra. The application of soap and unguent should be made twice a day. After a day or so the patch softens up, but exhibits small red points, which may vesiculate; the treatment is to be continued until these latter disappear. The practitioner will notice by the cessation of itching, and the general smoothing of the patch, that improvement is in progress. Of course this plan of treatment can only be used to really chronic eczema. We are accustomed to see thickening of eczematous patches mostly about the leg. The soap treatment, with bandaging, and the exhibition of iodide of potassium, or mercurials, internally, with diuretics if needed, do certainly work very remarkable cures as the rule. Rest may be required, and firm strapping, in the cases of false elephantiasis.

Nothing has been said as yet relative to the management of eczema impetiginodes. Of course, in those cases where the pus-formation is accounted for by the intensity of the inflammatory action, antiphlogistics, salines, and aperients are required at the outset, with the ordinary local treatment suited to eczema rubrum. But this is not the case where the pus-formation is out of all proportion to the local inflammatory action, where it is clearly due to the existence of a well-marked pyogenic habit of body; and this applies as well to the case of the infant as the old man. Here, a building up instead of a pulling down plan of treatment is called for. In true eczema impetiginodes, the diminution in the pus-formation is to be brought about by the use of general remedies—cod-liver oil, steel, good food, fresh air, and the like. I press upon the attention of the profession this point respecting the relation between the pus-formation and the degree of inflammation on the one hand, and the existence of the strumous diathesis on the other. The local treatment of impetiginous eczema is, in the early stages, that of eczema rubrum entirely; in the later, I never get beyond the use of the simplest astringents or weak white precipitate ointment, because all active stimulants and irritants reproduce or increase the pus-formation. In eczema infantile, what is needed besides is attention to the diet; that it be good, and regularly given; that such things as corn-flour made up with water be at once condemned, and good milk, with Robb's biscuits, be substituted, at the rate of two pints of the former per diem in the young, if the mother is weak and cannot nurse or is unfit for nursing. If the teeth are through, good broth may be given once a day. Then the secretions, if pale and unhealthy, should be rectified; and if the child is pale, steel wine given. I do not much care for arsenic. It is fashionable, and it does good in scaly eczema. As I said before, a weak ammonio-chloride of mercury ointment is the best local application in the more chronic stages.

REMARKS ON A CASE OF COMPOUND DISLOCATION OF THE ANKLE, WITH OTHER INJURIES;

ILLUSTRATING THE ANTISEPTIC SYSTEM OF TREATMENT.

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(Concluded from page 443.)

BEFORE proceeding to relate the further progress of this case, I have to direct attention to another circumstance of great practical importance in the injury to the ankle. On the day after the accident it became apparent that the violence to which the part had been subjected had destroyed the vitality of portions of the integument, not only at the anterior margin of the wound, where a slough about half an inch in breadth existed, but also in detached patches at the outer aspect of the dorsum of the foot. Now, if any one of these dead pieces of skin had been left exposed to atmospheric influence, it would have putrefied; and the putrefaction would in all probability have spread along the extravasated blood and serum in the subcutaneous tissue till it had reached the seat of fracture and the articulation, and all our antiseptic treatment of the wound would have proved nugatory. I once saw a case of compound fracture of the forearm in which the antiseptic treatment had been pursued with thoroughly efficient means, but after the lapse of some days I was asked to look at the limb in consequence of unsatisfactory appearances. I found the dressings applied perfectly correctly, and I had no reason to doubt that they had been so from the first; but the wound, when exposed, emitted an offensive discharge. On investigation I found a small slough of the skin, about half an inch in diameter, situated some inches from the wound, and just beyond the limits to which the lac plaster had been extended. The little slough had by this time undergone softening from putrefaction, so that the nozzle of a syringe could be introduced through it; and, on injecting some of the watery solution of carbolic acid, I found that it passed freely beneath the integument to the seat of fracture and to the external wound. Whether the skin had been thus extensively detached at the time of the accident, or whether the subcutaneous tissue had been simply loaded with extravasated blood, the spreading of the putrefactive fermentation from the slough exposed to the air was easily intelligible.

It is therefore essential that every isolated slough which may exist in the vicinity of a contused wound should be dressed antiseptically like the wound itself. But it may be asked, how is it possible to secure this at the time of the first dressing, seeing that there is nothing in the appearance of the skin in the first instance to indicate that vitality has been destroyed? The simple rule for attaining the desired object is to let the antiseptic plaster first applied overlap the apparently uninjured skin far and wide in all directions. Then, on the following day, let the integument be carefully scrutinised, when any dead portions will be recognised by a dusky discoloration. Every such discoloured patch should then be dressed, as if it were a wound, with a piece of protective and well-overlapping lac plaster. If the protective were omitted, the slough would acquire stimulating properties from the carbolic acid perpetually communicated to it by the lac plaster, and would excite the neighbouring living parts to granulation and "antiseptic suppuration." But if efficiently protected from the antiseptic, as well as from putrefaction, the dead tissues will be absorbed and organised like the clots of blood, new living structures being formed at the expense of the effete but nutritious mass.

Such was the course pursued in the present case; and, the oiled silk protective having been used in two, and sometimes three, layers, the results have approached very closely to those which are theoretically attainable. Some of the smaller portions of slough have been entirely removed by absorption, their place being taken by vascular new tissue. Five