REMARKS ON THE TREATMENT OF BURNS AND SCALDS.

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THE satisfactory termination of a burn or scald will often depend on the mode of treatment adopted when the patient is first brought under the care of the surgeon, not only as regards the constitutional measures taken, but also the external applications then had recourse to. The numerous dressings which, from time to time, have had their advocates, undoubtedly act much in the same manner—preventing exposure to the atmosphere; but from their plurality it becomes somewhat difficult to make a selection of that most appropriate, especially as many are recommended, backed by an equality of testimony and evidence. In making such selection, guidance should be taken, not from the reputation which such and such an application may happen to possess, but rather from the characters of the burn itself, injuries of a moderate nature requiring different, and perhaps more careful treatment in the first instance, than those of a more severe description.

Probably few things are more distressing, both to the witnesses and the sufferers, than cases of bad burns; and this remark is not only applicable to the time when the burnt part is undergoing cicatrization, but tells with double force when, from contractions and loss of integument, an eye is rendered almost useless, a limb becomes an absolute incumbrance, or the chest and chin unite. Happily such cases are now rare; but frequently, and notwithstanding the greatest care, some approach to such a state is inevitable; it is, therefore, of consequence that any treatment tending to obviate these unpleasant results should be propagated and made known as universally as possible.

Nearly three years back Dr. Steward, who was at that time my colleague in this institution, first recommended and brought into practice the use of creasote oil as an application to burns and scalds. I at that time bore testimony to Dr. Steward's estimate of its worth, and gave in one of the periodicals my opinion of its mode of operation when employed in such cases. Subsequent experience, without diminishing my faith in its efficacy as an application, has, however, led me to use it only in a certain class of cases; and the same experience has also led me to make use of other applications, which perhaps I may feel justified in recommending to notice.

Of course a burn or scald denotes inflammation, which inflammation is followed by its necessary consequences, precisely as though set up by a totally different cause; the first indication, therefore, is to keep down such action, and limit the mischief which may probably arise. And for a very slight burn or scald this object cannot be better fulfilled than by the constant employment of cold; and as an application in such a state nothing can be better than water, to which

a small quantity of æther or spirit has been added; or otherwise a piece of metal—brass or lead—will be found a very convenient substitute. This plan of treatment, however, will not do if much of the surface be injured, and it then becomes necessary to use an application which will both afford some degree of stimulus to the part, and aid in relieving congestion of internal organs. Such an application presents itself in creasote oil, and it is in burns of this description where its use is most successful.

Supposing a person to have the misfortune to burn some part, say, for instance, the forearm and hands; supposing the burn to be of that character which may be said to partake of the first and second degree of intensity, having several blisters already formed, I should recommend, and have practised with great success, the following treatment:—Any vesicles present are to be first punctured, and the parts then dressed over with creasote oil by means of a feather or brush, and allowed to remain exposed a short time. This generally has the effect of immediately relieving the pain, which perhaps may be due to the coagulation of the albumen contained in the serum thrown out, by the creasote; which fact is rendered apparent by the formation of a white film wherever the oil touches the abraded surface. It thus prevents the contact of the air. A minute or two having elapsed the dressings should be repeated, and the whole parts (if the hands) enveloped in strips of linen, slightly oiled, with a bandage over all, for better security of the dressings. In such a case as the one supposed, the cure will be complete in two or three dressings; and it is well worthy of notice, that if the creasote oil is applied soon after the receipt of the burn, it will effectually prevent any large amount of vesication.

I have recommended envelopment in oiled linen after the application of the creasote, on account of the situation of the parts supposed to be injured, but the effect is equal, and in some cases more marked, when no other application whatever, excepting the creasote oil, is used. Should the leg be the part burned, and the patient be able to lie by for some time, I should not use anything except the creasote; either preventing contact of the clothes by means of a cradle, (if the patient, as is the case in a hospital, can be made to lie in bed,) or otherwise by means of a sort of funnel, composed of cane hoops and linen, easily adapted round the limb. The application of the creasote should then be performed twice a day. The parts where there are no vesications are well at the second dressing, and the vesicated parts become covered with coagulated serum, which forms a scab, and makes the best protection which can by any possibility be devised. The cure is thereby rendered easy, painless, certain, and without smell, and the scab in a short time becomes detached from the newly-healed surface. I have treated large portions of the leg, thigh, and body in this way, the scabs formed gradually shelling off from the circumference inwards; but of course it is always proper to prevent, if possible, the loss of the cuticle, which is very liable to be rubbed off during conveyance to a

hospital, removal of clothes, &c. This treatment is peculiarly applicable to burns of the face where there is difficulty in retaining any dressing. The oil, however, may easily be applied, the only care requisite being that it does not enter the eyes, as from its stimulating properties it would cause great pain, and perhaps some degree of inflammation; should this accident happen, it is best to bathe the eye immediately with a little water. Many persons have expressed to me their fears for the consequences of not covering the parts, otherwise than by the creasote, particularly when, as sometimes happens, the patient is obliged to go out into the open air immediately afterwards; more covering, however, is not at all necessary. Burnt faces frequently are dressed and sent away exposed, and without any bad results. One case particularly intrudes itself into my recollection, which strongly illustrates this fact:—

A man applied during the winter of 1849, having his face burnt by an explosion of gunpowder. He was dressed with creasote, and taken into the ward; he, however, would not stop, and starting off home walked a distance upwards of four miles, there being at the time a high and bitterly cold wind. When he presented himself next morning he stated he had felt no pain from the exposure, the film of coagulation having effectually acted as a preservative against the piercing blasts. He continued his visits to the hospital until cured, and was exposed in like manner every day.

I trust enough has been said to prove there is some efficacy in this mode of treatment, and should any feel disposed to give it a trial, I fancy they will not be disappointed regarding the results.

I occasionally, however, treat burns in a different manner, but, as I said before, am regulated in my application by the character of the injury. A very good plan is to apply a thick solution of gum, allowing it to dry on the parts, which it speedily does, forming a kind of mail coat, which also acts effectually as a preservative from the atmosphere. This, when dry, cracks, and in a few days peels off, leaving the parts more or less healed. This is a very good mode of treatment when the smell of creasote is strongly objected to, which idiosyncrasy is sometimes met with.

Another very good application, and one which I can recommend, is an ointment, containing a proportion of hydrocyanic acid, or rather, more properly speaking, a liniment; my application being composed of olive oil, hydrocyanic acid, and *fresh* lard. The value of the application evidently consists in the hydrocyanic acid allaying the pain, which it does to a great degree. Probably the virtue of the famous quack remedy—the laurel ointment, depends on the same cause.

When called upon to treat burns of the third degree, where sloughing and loss of substance is inevitable, as it matters but little what application is made use of in the first instance, I generally smear the parts with some oily material, or carron oil, if procurable, and then envelop them in a *flannel* roller. This is allowed to remain for some days, until suppuration has commenced, when it is removed, and either a poultice or lint, soaked in lukewarm water, used in its stead. The

ulcers which result, of course must be dealt with according to approved surgical principles, but they will be, under any treatment, sufficiently troublesome. The chief point is to repress the exuberance of the granulations, which tend to render the cicatrix unsightly, and also retard that desirable process; while padding and splintering must also be kept in view, to prevent the lamentable contractions so disposed to take place. I may here also observe, that consistent with cleanliness, the less frequently a burn is *dressed*, the more likely will the patient be to progress favourably, as frequent exposures are thereby avoided. And I also am persuaded, that when a large surface has suffered, only a part of that surface should be exposed at one time; *nimia diligentia* in the treatment of burns is thoroughly deprecated.

Not the least difficult part in the management of a case is the internal treatment, when a burn or scald is of a severe description. The shock to the system is exhibited by the shivering, paleness, weak pulse, or perhaps stupor, present, and imperatively calls for brandy, wine, or other stimulants. In slighter cases, however, warmth to the feet, and a little warm tea only are requisite. Perhaps the most danger, particularly in children, occurs about the fourth day, when the lungs frequently become congested and difficulty of breathing results. Antiphlogistic treatment must then be adopted and leeches applied to the spine, with antimony internally, perhaps combined with compound tincture of cardamoms or sulphuric æther. It is believed several lives have been saved by this treatment, which would have been sacrificed had stimulants been altogether persevered with as frequently advised.

There is one drug which is frequently recommended in burns, viz., opium, but it is for the most part inadvisable, adding as it does to the congestion and stupor already present; the only time when it appears to be proper, is when diarrhoea has supervened, when it frequently produces great comfort and is evidently productive of good. Hyoscyamus is the preferable drug, should a sedative be wished for in these cases.

[To be continued.]

CASE OF LOOSE CARTILAGES IN THE KNEE-JOINT.

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Few local ailments unattended with continued inflammation, occasion so much pain and inconvenience as loose cartilages in the knee-joint. Therefore persons dependent on active exertion for their livelihood, and others who may be anxious to be at once freed from the complaint, have from time to time submitted to the operation for their removal, and though this has generally been successful, yet it has not unfrequently been followed by violent "inflammation,* fever, and

* Vide "Medico-Chirurgical Transactions," vol. xiv., page 277, and Cooper's "Surgical Dictionary." Article—"Loose Cartilages in Joints."