

salicylic acids in dressings. (*Medical Press and Circular*, March, 1876.)

His experience has been that the salicylic acid dressings do not exert so marked an influence in controlling suppuration as carbolic acid, which is in a great measure due to the fact that it is non-volatile, and so does not penetrate the depth of wounds. It wants, too, the advantages that arise from the stimulating action of the carbolic acid, and so wounds progress rather more slowly under its action.

The spray of salicylic acid, though entirely odorless, is quite unfit for general use, as no one can resist a constant tendency to sneeze while exposed to it.

He has obtained a great number of completely successful results with salicylic acid alone, and does not hesitate to use it by itself in many cases—for instance, in the treatment of burns.

The salicylic dressing he has found most convenient is that recommended by THIERSCHE, made by saturating jute with the acid, 3 per cent. by weight, adding a little glycerine, 4 3/4-℥., which prevents the drying of the jute. He thinks great advantage attaches to the moist condition of the dressing; it is ready to absorb moisture, and if air be drawn through it, as in wounds affected by respiration, the moist threads serve, he is confident, as better filters than dry ones would. The advantage of addition of glycerine, according to THIERSCHE, is that it prevents the dry acid from flying off in dust from the jute.

Nothing can be easier made or more readily applied than the jute dressing. He applies it beneath a few folds—generally three—of gauze, containing sheet gutta-percha, directly on the wound, except in cases where the support of a bandage is required directly on the flaps, etc. This mode of application, made under the carbolic spray, combines both acids, and the application of the jute next the wound prevents the irritation often felt from the gauze rubbing the skin.

RÉSUMÉ OF REMEDIES.

Alcohol, as an efficient antizymotic and stimulant, has been largely used as a dressing. (See above, p. 77.) Most of the tinctures used as vulneraries owe their value to the alcohol they contain.

A formula much used by Prof. JOSEPH PANCOAST, of Philadelphia, is:

83. R. Castile soap, 3j.
Bicarb. potass., ʒj.
Alcohol, ʒiv. M

Apply with pledgets of lint.

Aloes, in powder, dusted on smaller lacerated wounds, forms a stimulant dressing, by occlusion, highly praised by some French surgeons.

Alumen, in the following formula, is used by Prof. LISTER as an application to ill-smelling and pustulating wounds:

84. R. Aluminis, ʒss.
Plumbi acetatis, ʒj.
Aquæ, ʒj.
For a lotion. Oj.

Aluminii Chloridum, or chloralum, is a powerful antiseptic deodorizer; not poisonous, and particularly serviceable in wounds with foul discharges.

Aqua. The oldest, simplest, and, in some cases, the best of dressings is pure water, of proper temperature. (See page 75.)

Aqua Chlorinii in its concentrated form (one part to ten.) It is rather painful, and when diluted its application must be frequently renewed.

Balsamum Peruvianum is a most excellent application to wounds. Dr. MARTIN BURKE, of New York, finds the following combination unsurpassed for foul sinuses, old ulcers, badly lacerated tissues, etc.:

85. R. Acidi carbolici, ʒj.
Aquæ, f. ʒj.
Balsami Peruviani, f. ʒiv.

To be well beaten up. Apply on picked oakum after carefully cleaning the wound. (*Medical and Surgical Reporter*, Feb., 1877.)

Balsamum Tolutanum. A German surgeon, Dr. E. WISS, of Berlin, has recently expressed himself in almost unbounded praise of balsam of tolu as an application to wounds of all kinds. When the balsam was put upon wounds, it produced an immediate sensation of burning, which, however, very soon ceased, as did all pain, even in most severe wounds. Fresh wounds under this treatment showed no inflammation, and in those already inflamed it soon ceased. No suppuration took place, and where it was already present it soon disappeared. No wound treated by him by this method took on a septic character, even under the most unfavorable local and climacteric surroundings. In all cases, even in lacerated wounds, there was union by first intention, a thing which had not been his experience in any other method of treatment. (*Berliner Klin. Wochenschrift*, 1876 and 1879.)

Benzoin. Recent observation has shown that benzoic acid has decidedly antiseptic properties. The compound tincture of benzoin has been employed very successfully as a dressing to recent wounds. It is similar to the once celebrated "Friar's Balsam." Pure tincture of benzoin, applied on lint, is an admirable primary dressing.

Boracicum Acidum has been recently introduced and very favorably reported upon. (See pages 83, 86.)

Bryonia. Tincture of bryony is a favorite application among pugilists for the bruises, cuts and contusions they receive in their encounters. It seems little known as a local application to the profession, while its acknowledged powerfully stimulating properties, both to the skin and mucous membrane, recommend it as probably very efficacious in such wounds.

Calcii Iodas. The iodate of calcium has been employed with very excellent results as an antiseptic by Mr. S. W. MOORE, of London. (*St. George's Hospital Reports*, 1875.) He applies it in the following proportion to foul ulcers, cancers, purulent abscesses, etc.:

86. R. Calcii iodatis, $\frac{7}{3}$ ss. M.
Farinæ pulveris, $\frac{3}{3}$ j.
For external use.

He also derived much benefit from its internal administration, grs. j-ij, thrice daily.

Calendula Officinalis. A tincture of this indigenous plant, diluted two parts with water, has been recently extolled by Dr. G. H. CHAPMAN, of Illinois, (*Michigan Medical News*, November, 1878,) as possessing antiseptic and curative properties of a remarkable kind.

Camphora has been employed, both powdered over the wound and mixed with carbolic acid, etc. (F. 64.) It is only slightly soluble in water, and is not a deodorizer.

Carbo Vegetalis. Wood charcoal is a convenient and powerful antiseptic application. It may be used as poultice (p. 38,) or mixed with other substances (p. 94,) or applied as powder.

Carbolicum Acidum is the leading antiseptic with most surgeons. (See above.) In the opinion of many, however, it is in no way superior to many others. Its odor is offensive to most patients, and when dissolved in oil it ruins the dressing and bedding. It is also poisonous, and in operations under chloroform is said to increase the dangers of the latter by rendering the air less respirable. Much of the success which has followed its use in the hands of LISTER and his disciples is said by others to be attributable to the unusual cleanliness and care he enjoins.

Chloral has been used extensively as an outward application for the relief of pain, and as an antiseptic for the dressing of wounds. (See page 88.)

Chlor-Alcohol. Under this name Dr. E. HERMANT, of Brussels, has introduced a mixture of equal parts of chloride of lime and tincture of camphor, which he recommends as an antiseptic, detersive and cicatrizing.

Chlorinium. As a powerful oxydizing disinfectant and local stimulant, the use of dilute aqua chlorinii has some advantages.

87. R. Aquæ chlorinii, $f. \frac{7}{3}$ ss-j. M.
Aquæ, Oj.
Use as a lotion.

It must be remembered that chlorine water is a powerful irritant, capable of producing severe inflammation of the skin. The *liquor sodæ chlorinatæ* is a more appropriate preparation for dressings, and has been employed with great satisfaction in unhealthy wounds.

Collodion is used to bind together the edges of clean-cut wounds, to exclude the air. It is unfortunately liable to crack. (For RICHARDSON'S styptic collodion, see the Index.)

Creosote in solution is a powerful antiseptic stimulant. Dr. SQUIBB believes that

both for disinfection and local application, no preparation is better than the ordinary creosote of the shops (a mixture of phenol, cresol, xylol, and perhaps one or two others of the series, the cresol predominating), which has also the advantage of being much cheaper. Simple watery solutions of creosote, sufficiently dilute, applied on old linen or muslin, he believes will serve every purpose of Mr. LISTER'S putties and plasters. For burns, both to allay the pain and to promote healing, nothing compares with such a solution, containing about one-half of one per cent. of creosote. If much stronger it not only fails to relieve, but intensifies the pain.

Ferri Salicylas. This preparation is made by adding salicylate of soda to a saturated solution of sulphate of iron. It is of a bright claret color, with no smell, not irritant, and strongly antiseptic. It has been recommended by Dr. ROBERT KIRK, of Edinburgh, as an application to foul ulcers, &c. He applies lint soaked in the solution, and covers with gutta-percha tissue. (*Edinburgh Medical Journal*, Feb., 1877.)

Ferri Sulphas. For dressing wounds, when there is much discharge and fetor, a solution of this salt, $\frac{5}{j}$ to aquæ O j-ij, will be found very effective. It is a very good disinfectant, and in these cases diminishes the odor better than carbolic acid, for it has no disagreeable smell of its own; it also dries up the excessive discharge in a prompt manner; it hastens the granulating and cicatrizing processes, which are apt to be retarded by the profuse discharge. The lotion gives rise to some smarting when first applied, but this soon passes away, and so much is the general comfort of the patient promoted, that this soon comes to be disregarded even by children; it should be applied on cloths well wetted, and renewed every two or three hours; it is well to protect the bed-clothes, for the stain is well-nigh indelible.

Glycerina is a useful and cleanly dressing. It should be diluted by one-half of oil, alcohol or water, as if applied pure it causes painful smarting.

Gutta-percha dissolved in oil of turpentine or chloroform is an excellent application for keeping the edges of wounds together.

Hæmatoxylin. Logwood is an excellent disinfectant and antiseptic when applied to suppurating and offensive wounds. The powdered extract may be used, or it may be dissolved in a lotion. The following is recommended by Dr. TANNER:

88. R. Extracti hæmatoxyli, $\frac{3}{j}$
Olei theobromæ, $\frac{3}{j}$
Adipis benzoati, $\frac{3}{j}$ ss. M.
To be spread on old linen for a dressing.

Hamamelis. The tincture of witch-hazel has much reputation as an application to wounds. Its virtues are owing to the alcohol and the tannin of the plant.

Hydrargyri Chloridum Corrosivum. Corrosive sublimate is a powerful antizymotic, ranking, according to the experiments of Dr. P. GRACE CALVERT, next in efficiency to carbolic and cresylic acids. In very dilute solution, is an excellent stimulating and antiseptic application to wounds:

89. R. Hydrargyri chloridi corrosivi, gr. ss-j.
Aquæ, Oj.
For a lotion.

91. R.	Thymol,	1 gramme.
	Alcohol,	10 "
	Glycerine,	20 "
	Water,	1000 " M.

This makes a clear solution of agreeable odor. It is used the same as carbolic acid.

Tinctura Opii Camphorata, with equal parts of simple syrup, is recommended by Dr. Q. C. SMITH. (*Nashville Journal of Medicine and Surgery*, June, 1879.) Flies will not approach the wound, and it heals rapidly.

Zinci Chloridum. A powerful antiseptic and stimulant. In exsection or amputation of cancerous or other ill-conditioned parts, Mr. C. DE MORGAN recommends to mop the wound thoroughly with a solution ℥j-ij to aquæ f.℥j (the weaker is generally strong enough.) As an antiseptic and stimulating dressing, gr. v-x to aquæ Oj is exceedingly useful. Sir W. BURNETT's disinfecting fluid consists of gr. xxv of this salt to aquæ f.℥j; for use, about one ounce of this solution is added to a quart of water.

IV. THE COMPLICATIONS OF WOUNDS.

Erysipelas—Gangrene—Hemorrhage—Phagedæna—Pyæmia—Shock—Tetanus—Traumatic Fever—Traumatic Neuralgia and Paralysis.

ERYSIPELAS.

MR. T. HOLMES.

The depletory treatment of erysipelas is almost abandoned. In the plethoric and strong, after the bowels have been freely opened by a mercurial purge, salines with small doses of antimony, and light fluid diet without stimulants, should be ordered. In the cellulocutaneous form after injuries, the purge should be employed, but an early resort to free stimulation is demanded. When there is much nervous excitement, opium should be carefully administered; but as a rule, opiates are to be avoided in erysipelas, except in the phlegmonous form after injuries. Camphor, ammonia and light tonics, generally act beneficially after the bowels have been regulated. The free exhibition of the tincture of the perchloride of iron is very beneficial in many cases; gtt. xv-xx every three hours must be given in order to produce its specific effect; and it will not agree if the tongue is foul, and the general fever is rising. Salines with small doses of antimony should be prescribed in that condition, and the iron resumed subsequently.

Locally, the exclusion of the air from the inflamed surface is very grateful. An ointment of calamine or of lead may be used for this purpose; or the part is defended by a layer of cotton wool, or some bland, warm lotion is used, as dilute solution of the subacetate of lead with opium, or a solution of the sulphate of iron.

92. R.	Ferri sulphatis,	℥j.	M.
	Aquæ,	℔j.	
Or,			
93. R.	Tinct. ferri chloridi,	f.℥ij.	M.
	Aquæ,	f.℥viij.	

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