ON THE USE OF TEREbene IN SURGICAL DRESSINGS: A CONTRIBUTION TO ANTISEPTIC SURGERY.

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HAVING been led recently to investigate the utility for surgical purposes of terebene, an aromatic hydrocarbon, which has been introduced to the notice of the profession for disinfecting and deodorising purposes by Dr. Bond, Medical Officer of Health to the Gloucestershire Combined Sanitary District, I have thought that the results were sufficiently striking to be worth putting on record.

It is only necessary for me to premise that some of the properties which this liquid possesses seem to render it very suitable for the purposes in question. It has a pleasant odour, and it is said, when volatilising, to develop ozone. Whether this be so or not, it certainly has marked powers in neutralising putrescent odours. When applied to any surface, it exhibits remarkable adhesive properties, spreading over it in a thin film, and thus sealing it from the air, an effect which is prolonged by the slowness with which it evaporates. Lastly, it may be applied to a raw surface with impunity, and it exercises a distinctly stimulating effect on the process of cicatrisation. These are properties which any one may test for himself. It further appears, from the recent researches of Messrs. Braidwood and Vacher on Contagium, that terebene possesses germicide properties, so far as can be judged from the effect which it exhibits in destroying the vitality of vaccine matter, when applied to heifers.

Since the spring of 1875, I have used terebene very largely, both in hospital and private practice; and the conclusion to which I have been led in regard to it is, that it offers to the surgeon very important advantages for surgical purposes in the facts that, by its aid, a wound may be placed under the most favourable conditions possible for healing, and that the dressings need not be removed for weeks together—indeed, not until the wound is entirely healed; thus saving the patient a great deal of suffering and some risk, and the surgeon a large amount of trouble.

The impunity with which terebene can be applied to a raw surface is

due to its being an entirely neutral body, and to its not acting as a coagulant of albumen and gelatine, as carbolic-acid and other similar antiseptics do. It may, therefore, be brought into direct contact with the surface of a wound, which when thus covered with it is, for the reason given above, effectually protected against the absorption of foreign matters from without.

I have appended a tabular statement of some of the larger operations in which I have used terebene; but I have applied it in a number of smaller ones with equally good effect, and also as a dressing in cancerous disease and for ulcers. The point to which I wish principally to call attention is the length of time during which the dressings were left unchanged, extending in some cases to three months, without causing any prejudicial effect to the patient, but rather the reverse. It will be obvious that the advantages which are thus offered to the surgeon, in ordinary civil services, would be very largely increased in conditions where wounds have to be left unavoidably untended for a considerable length of time; for instance, after operating in the field or in military hospitals during war. In such cases, the duty of the surgeon would be confined, as indeed is the case also under any conditions in which this method of treatment is applied, to taking care that the parts are brought into proper position at the outset, so as to produce a satisfactory result when healed, and to seeing that the terebene is applied regularly to the dressings, so as to keep them saturated.

To illustrate the method of application which, in my hands, has proved successful, I give a brief description of the dressing applied after the operation for excision of the knee-joint.

Bleeding having been stopped by torsion of vessels, the wound is washed with terebene and water (an ounce to the pint, the two being well shaken together); all bone-dust and blood-clot being removed, and the skin of the limb cleansed, pure terebene is poured freely over the surfaces of the wound, and all crevices filled with it. The limb is placed on a common wooden back splint, with foot-piece properly padded, and strips of strapping fix the thigh, leg, and foot to the splint.

The edges of the wound are adapted with the fingers, and strips of lint soaked in terebene (pure) are passed tightly round the limb to maintain them in apposition, plenty of terebene being poured between the surfaces of the wound. No ligatures or sutures are used.

Cotton wool is applied outside the lint, enveloping the entire limb from toe to groin, and a bandage soaked in terebene outside the wool. The nurse is instructed to keep the outside bandage soaked in terebene,

Table of Cases.

Name.	Age.	Sex.	Disease.	Operation.	Dressing.	Date of Operation.	Dressing removed; Date; Condition.	Subsequent Dressing.	Date of Result.	Result.
H. C. A.	7	M.	Abscess of knee-joint	Knee-joint opened; part of heads of femur and tibia, and patella removed	No sutures; edges of wound adapted with strips of lint soaked in terebene; back splint and bandages applied with terebene	May 12, 1875	July 18: wound nearly healed; dressings free from odour	Lint soaked in terebene and water	Sept. 3	Cured; stiff knee
R. C. W.	9	F.	Pulpy disease of left knee-joint	Excision of knee-joint	Edges of wound brought together with strips of plaster soaked in terebene; cotton-wool and bandages soaked in terebene; back splint	June 1, 1875	Oct. 7: wound healed, except one small sinus	As above	Nov. 4	Cured; stiff joint; subsequently two small sinuses formed, dead bone came away, and leg healed entirely
A. N.	5	F.	Necrosed femur	An opening made with gouge and chisel, and sequestrum removed	Wound filled with terebene; a strip of lint bound firmly round, well soaked in terebene; splint, cotton-wool, & bandage	Oct. 4, 1875	Oct. 7: one small sinus left	As above	Dec. 7	Cured: three months afterwards, two or three small pieces of bone escaped from one small sinus
T. A. B.	6	M.	Pulpy disease of right knee-joint	Excision of joint	Wound washed in terebene, and filled with it; the rest as H. C. A.	Mar. 13, 1876	June 7: wound nearly healed; no pus	Zinc ointment	Aug. 1	Cured
A. R.	9	F.	Contracted cicatrices after burn	Cicatrices dissected out, and flaps of skin brought over	Wound surrounded with a strip of lint soaked in terebene; cotton-wool, splint, and bandage	Mar. 16, 1876	May 7: healed		May 7	Cured
L. C.	7	F.	Knee-joint in advanced disease, abscess, and necrosis	Excision of patella, head of tibia, and condyles of femur; also of the tibio-fibular joint	The same as R. C. W.	Mar. 13, 1876	June 3: three small sinuses left	Zinc ointment	Feb. 3, 1877	Cured
J. R.	4	F.	Necrosis of humerus	Opening made with gouge, and sequestrum removed	The same as A. R.	Mar. 13, 1876	May 4: cured		May 4	Cured
T. J.	24	M.	Accident	Amputation of forearm at lower third	Flaps brought into position with strips of plaster soaked in terebene; lint and cotton-wool soaked in terebene; splint and bandage	Oct. 4, 1876	Nov. 4: Three-quarters of wound healed	Water dressing	Dec. 7	Cured
J. B. B.	16	M.	Accident	Amputation of first and ring-fingers	Lint, cotton-wool, and bandage, soaked in terebene	Oct. 4, 1876	Nov. 4: cured		Nov. 4	Cured
L. P. T.	6	M.	Knee-joint; pulpy disease	Excision	Wound washed and filled with terebene; lint soaked in terebene; cotton-wool; bandages soaked in terebene; splint	Jan. 4, 1877	Feb. 14: wound almost healed	Zinc ointment	Feb. 22	Wounds healed entirely

a small quantity dropped two or three times daily upon it sufficing for the purpose.

A wound thus dressed may be left for weeks without a bandage or pin being removed. Before removal of the dressing, it should be well soaked with terebene for three or four hours. This is done by slowly dropping the terebene all over the surface of the bandage. It is then removed carefully, layer after layer being divided with the scissors, and fresh terebene is poured on to moisten any parts which have become matted together, when they easily separate.

I have never been troubled with any quantity of discharges; as a rule, the amount is practically *nil*. If the terebene be frequently applied, there is no unpleasant odour.

The advantages of this mode of dressing are these.

1. The patient never sees the wound; he is spared the anxiety caused by the anticipation of being dressed, and the bodily shock attendant upon the removal of dressings.

2. The wound is treated antiseptically.

3. The efforts of nature are not interfered with by accidental rough removal of dressings.

4. Perfect rest, the treatment for pain, is obtained.

5. Economy of time and labour for surgeon, assistants, and nurses, is secured.

OBSTETRIC MEMORANDA.

ERYSIPELAS IN CONNECTION WITH THE PUERPERAL STATE.

ON April 29th, I was asked to see Mrs. N. Having been engaged to attend her in her confinement, I expected that labour had begun; but I was wrong in my conjecture. I found her suffering from an attack of facial erysipelas, the inflammation being confined to the left side of the face. I treated her in the ordinary manner, bearing in mind that she was very near her full time. On the following day, the erysipelatous inflammation had extended across the nose to the right side of the face—the lower eyelids were involved, the upper ones escaped. The constitutional disturbance was slight; the pulse was 88, and the temperature was little above the normal standard. The lymphatics of the neck on both sides were swollen and painful. Dr. Deville saw the patient with me, and suggested that we should check the tendency of the erysipelatous inflammation to spread upwards, by painting the adjacent skin with a preparation of iron. The liquor ferri perchloridi fortior was freely applied, beginning a little below the mastoid process on one side, and going across the temples and forehead to a similar point on the other side.

About 2 A.M. on the following day, May 1st, I was hurriedly called to see the patient, as labour had commenced. The second stage was going on, and in a short time (the patient had six children before) the child was born, a well-nourished male infant. The placenta was removed without any difficulty.

Speaking of the occurrence of puerperal fever, Dr. Churchill says: "The two epidemic diseases which most commonly prevail at the same time, and under somewhat similar circumstances, are erysipelas and typhus fever, especially the former, whose presence in surgical hospitals is always indicative of impending puerperal fever. Some have gone further, and expressed their opinion of these diseases being so far identical as that infection from either erysipelas or typhus fever may give rise to puerperal fever. Mr. Nunneley, in his work on *Erysipelas*, considers the two diseases to be identical, prevailing under the same atmospheric conditions, exhibiting the same general symptoms, and each capable of reproducing the other. Dr. Hutchinson and others have seen both puerperal fever and erysipelas in the same patient at the same time, etc." Hence I watched my patient with some anxiety.

On May 2nd, the pulse and temperature were normal; the left cheek was better, the right one was swollen and painful. To be brief, on May 5th, the erysipelatous inflammation had entirely subsided.

The patient is in easy circumstances. She had a good nurse, and the greatest attention was paid to cleanliness, ventilation, etc. The lochia was not interrupted; it continued after this to the same extent as after the patient's former confinements. The secretion of milk was established in due time, and the baby exhibited no repugnance to take it freely. I saw the patient on May 14th, and was not displeased to find her seated at table enjoying a hearty dinner.

I trust this case is not without some interest in a practical point of view, seeing that the lochial and lacteal secretions were not interfered with in the slightest degree.

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REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

LONDON HOSPITAL (MR. HUTCHINSON).

Relation of Gout to Chronic Rheumatism.—An elderly hemiplegic man, the subject of chronic arthritic rheumatism, presented the latter affection only on the paralysed side, the joints here being much distorted, while those on the other side were comparatively free from disease. In his remarks, Mr. Hutchinson said this would seem to indicate that a limb, the subject of nerve-lesion, is more susceptible to chronic arthritis than other parts. Gout is chronic rheumatism made special. Some condition of the system is added to the simple rheumatic condition, as manifested by the presence of lithate of soda in the blood and in the seat of inflammation. It is generally accompanied by a bad digestion, and at least a functional disturbance of the kidneys, and very often by organic renal changes, so that lithic acid tends to accumulate in the blood. Again, gout is probably chronic rheumatism plus a dietetic derangement. Arguments in favour of this view are found in tracing the family history of cases. In most instances of gout, the family history will show chronic rheumatism in some members, frequently on the female side, the males being liable to fully developed gout with chalky deposits. In seeking to ascertain whether a case of chronic arthritis was true gout at its commencement, inquire as to the duration of the primary attack, whether it lasted a short time and was acute in its course, or a longer time in a chronic condition—whether one joint was long attacked, the inflammation lasting many weeks as in chronic rheumatism—or whether the early attacks were acute on the various occasions attacking different joints—particularly inquiring whether the first onset was an acute inflammation of the great toe. True gout may be inherited, and thus the tendency to its development inherent to the individual, or it may be acquired by him as the result of his habits—the latter class are usually in early life full eaters, with good teeth and vigorous digestion.

Molluscum contagiosum.—A girl thirteen months old was the subject of numerous warty growths irregularly distributed on the limbs, face, and eyelids, with a few on the scalp, the latter being a rather unusual situation. They were mostly very small, but some were as large as small peas; many were almost pedunculated; there was generally an absence of all signs of inflammation. The child had been suckled, but the mother was free of molluscum. Nothing was noticed on the skin till the child was four months old. When the warts began to appear, they have increased in number and size to the present time. Mr. Hutchinson took a small curved pair of scissors, snipped each off, and scraped out the sebaceous contents and lining membrane with the finger-nail or scissors. No scar will result, the cutis vera being uninjured. The tumours are hypertrophied sebaceous glands, in growth tending towards the epithelial surface; they are analogous to the Meibomian glands forming tarsal tumours, and the treatment is similar; cut into them and squeeze or scrape out the cyst-wall.

Ankylosis of Hip-joint.—A boy aged 16 walked to the hospital on crutches. The femur was found ankylosed to the pelvis, much new bone having been thrown out around the joint. This condition is attributed by the mother to an accident when he was three years old. In walking, in order to bring the foot to the ground, he bends the pelvis backwards by flexing the lumbar region of the spine; this produces great distortion of the body, and quite incapacitates him for all work. Mr. Hutchinson proposes to perform subcutaneous section of the femur below the trochanters and produce a false joint.

Fracture of Patella.—Mr. Hutchinson remarked on the almost constant atrophy of the quadriceps extensor after this accident, while the flexors, which are equally kept at rest during the treatment, do not waste; this atrophy is sometimes not recovered from on convalescence. It would seem to be in some way connected with injury of the sesamoid bone of its tendon.

OUT-PATIENT DEPARTMENT (MR. REEVES).

Otorrhœa and Granular Throat.—Otorrhœa had followed the removal of a polypus. The importance of examining both ears and the throat was insisted on. Here the throat was found to be "granular", and the seat of follicular adenitis. Mr. Reeves referred to a class of cases in children where the throat is granular and the tonsils enlarged, caus-