Clinical Department.

A NOTE ON BISMUTHUM TRIBROMPHENYLICUM AS A SURGICAL ANTISEPTIC.

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It is difficult to pass an opinion regarding the real value of an antiseptic, because bacteriological experiments are not always in accord with the clinical results obtained. Such, for example, is iodoform, which theoretically is without value, while practical experience demonstrates its great virtues.

The phenols, such as carbolic acid, the chlorobromo- and iodophenols, cresol, pyrogallol, naphthol, etc., are the most powerful antiseptics, after those of the naphthol series, but their use is limited on account of their toxic and caustic properties. These defects disappear if H₂O is replaced; example, phenol and salicylic acid give by their combination salol.

The reason why salol and other like products give such excellent results when applied to wounds or the mucous membranes is because they split up into their constituents in a slow and continuous manner, so that when a large surface is covered, the toxic and caustic action of the cresol or carbolic acid does not occur. The pheneolates of bismuth easily decompose in presence of the organic liquids, and the amount of phenol liberated is sufficient to give excellent antiseptic results.

Of all the groups of antiseptics, bismuthum tribromphenyllicum, or as it is also termed "xeroform," is recognized as the most active: first, because it contains besides 40 per cent. of oxide of bismuth, 50 per cent. of tribromphenol, while other products only contain from 10 to 20 per cent. of phenol, cresol or napthol; and, secondly, tribromophenol is more antiseptic than phenol.

Bismuthum tribromphenyllicum has for chemical formula C₇H₅Br₂O — Br — O, and it is rapidly decomposed by acids and bases, especially when heated. But on the contrary, it may be heated to 110° C. without decomposing and is thus superior to iodoform because it can be sterilized.

It is a fine, yellow, neutral powder, which does not decompose when exposed to light; its odor is slightly carbolic; it is tasteless and does not irritate the mucous membrane of the digestive tract.

Little has been written regarding the surgical applications of this product; but there is no doubt in my mind that it has a large field of usefulness in surgery.

In open wounds, those in which infection has taken place, the tribromophenol of bismuth will secure union by first intention. It appears to exercise a calming influence on burns, like iodoform. In cutaneous affections with secretion of pus, such as impetigo and sycoasis, the results obtained with this preparation were not satisfactory. In some cases of pruritus localis sine materia the itching was stopped by the application of this product. When applied after the curettment of tubercular abscesses or glands, cicatrix was rapid.

On account of the continual development of tribromophenol and oxide of bismuth, a wound will be kept in a perfectly antiseptic condition, while the slightly irritating action of the former gives a fresh and healthy aspect to the wound.

One of the properties of iodoform is to produce granulation tissue; tribromophenoliate of bismuth and other antiseptics, such as sirol, europhen, iodol, etc., do not have this quality to such a degree; consequently in order to cause granulations to spring up, iodoform should be first applied, and ecartitation can be accomplished with the bismuth product. This method I tried with success in two cases of fistula in ano after having freely opened, excised and curetted the fungous masses.

My experience with the product under consideration amounts in all to twenty-six cases, as follows: five cuts of the extremities requiring from three to twelve sutures; one ulcer molle; two operations for bilateral laceration of the cervix; seven curettements for acute gonorrhœal endometritis; two cases of vaginitis; three operations for tuberculosis of the bones; one abdominal hysterectomy; one tubercular abscess of neck; one sub-apsoneurotic abscess of axilla, one appendicitis; and two operations for fistula in ano.

In all these cases it appeared to me that this powder gave more satisfaction than I have ever had with iodol, europhen, iodoform or tincture of iodine, all of which I have thoroughly tried. In the gynecological cases it appeared to me that this product had a marked influence on the regeneration of the epithelium.

In no case did I meet with any toxic symptoms, although in the cases of tuberculosis of the bones and tubercular abscess of the neck in a child eleven months old I applied the powder very freely in the wounds.

In closing this short note I would strongly recommend this substance to the profession as a safe and sure antiseptic, and in many respects superior to iodoform or other powders of this class.

THE STIMULATING TREATMENT OF PNEUMONIA.

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In the London Lancet of April 4th of last year, was an interesting paper by Dr. Squire, strongly advocating the stimulating treatment of pneumonia, in which a hospital case was cited in illustration of its efficacy. The patient was "so far gone" that the physician in attendance gave him up as in a hopeless condition. The intern and the nurse, however, determined he should not die if they could help it, and accordingly applied him with brandy, as much as they could get down. The result was that he took in twenty-four hours thirty-two ounces of brandy, with decided benefit, and following up the treatment the man got well. A good abstract of the paper is published in the Therapeutic Gazette of August 15th.

This case brings very forcibly to my mind one under my care in the Massachusetts General Hospital some years since. The patient was a respectable young woman, eighteen years old, who at the time of her admission, was suffering from double pneumonia, the lower half of both lungs being solidified. She was of course in a very critical condition, requiring that she should be held up by all the means that could be employed. She absolutely refused, however, to take any form of nourishment, even milk. Happily, she did not object to stimulants, so I directed the nurse to give her as much good French brandy as she could.
persuade her to take, properly diluted, watching carefully for any sign of over-stimulation.

On the following morning I was astonished to find that she had taken half of a so-called quart-bottle of the stimulant (a little short of sixteen ounces) without the least discomfort or over-excitement. The treatment was continued, the same quantity of brandy being given each of the two following days, with no bad result. On the morning of the fourth day whiskey was substituted for brandy, and of this she took three-quarters of a quart-bottle each day for four successive days, without the least discomfort or over-stimulation. On the morning of the eighth day there was a decided change for the better, and the patient absolutely refused to take a drop more of liquor. This was accordingly omitted, and she took without any objection, milk and other light nourishment such as her condition called for, and her recovery was complete and rapid. It was interesting to note how readily the patient, who was not an habitual user of stimulants, took them as prescribed — how entirely free she was from any appearance of intoxication while taking them — and her instant rejection against them when the demands of nature had been satisfied. She took no drugs from the beginning to the end of her illness. I will only add that I cannot recall any other case in my practice in which I have thought it advisable to give stimulants so freely. Of course I have used them very often, as the case required, but never so far as I can remember, to the entire exclusion of food and drugs.

Medical Progress.

REPORT ON DISEASES OF CHILDREN.

BY T. M. RUTCH, M.D., AND A. H. WENTWORTH, M.D.

TREATMENT OF SCARLET FEVER BY ANTI-STREPTOCOCCUS SERUM.

This publication is a résumé of studies made in ninety-six cases of scarlet fever in the Hôpital Trousman. It was taken for granted that the secondary infection in the severe cases of scarlet fever was due to streptococci, and that by means of inoculations with anti-streptococcus serum, this dangerous complication might be avoided. Of the ninety-six cases four died; these cases, however, had been received after the duration of the disease for a number of days. In two children who died in spite of the injections there were found present also Klebs-Löffler bacilli. The latter were found, together with streptococci, in fifteen other cases of scarlet fever. Two more of the fatal cases were suffering from uremic poisoning. There was still another death which was due to a double pneumonia as a complication. The results arrived at were the following: That the action of the serum is only temporary. The injections must therefore be repeated as often as an exacerbation takes places. The most marked effect of the injections is on the glandular swellings and the initial albuminuria. They do not, however, prevent the appearance of purulent albuminuria. The writer expresses the opinion for the present, that the remedy may do some good in scarlet fever cases.


RESULTS OF THE PATHOLOGIC ANATOMICAL EXAMINATIONS OF THE EAR IN MEASLES.3

F. Bezold after carefully conducted examinations for a number of years arrives at the following practically important conclusions: In not one case of death from measles was there missing at the autopsy a mucous purulent or purulent secretion in the temporal bones. With the exception of one case, where the process existed before the contraction of measles, there were present fresh inflammatory processes, confined in one case only, to the bony tube, in two cases to the tube and the floor of the tympanum. In all other cases there were collections of secretion, redness and swelling covering all the cavities of the middle ear. A spontaneous perforation of the drum membrane is not often produced by the otitis of measles. Injection of the vessels was slight, irregularly distributed and occasionally punctiform. The destruction of the drum membrane and the auditory canal occurred more seldom, probably on account of the more protracted course of the inflammation, than we find in other forms of otitis, notably that occurring in scarlet fever. The otitis of measles is to be looked upon as an integral part of the systemic infection, and does not arise through extension from the nose into the Eustachian tubes, etc. In the greater number of cases the pus is again absorbed without having caused perforation of the membrane, or any injury even to the hearing. In a few cases the exterior of the drum membrane does not show any changes, but usually it is somewhat darker, and particularly in the posterior upper quadrant is of a diffuse livid-red color. Masses of pus may shine through in the intermediary zone of the posterior half, giving it a yellowish color, and usually it is slightly bulging here. Besides this, single radiating vessels are frequently seen, and in single cases a sinking of the drum membrane is observed. The surface becomes successively dimmer, often wrinkled, and on greater saturation by serum or thin liquid pus, raised veins are noticed. If a perforation takes place from the middle ear, the secretion will continue days or weeks. The perforation is seldom large, and always closes up again. With good treatment, hearing is restored even in the perforative form. In comparison with the forms of otitis which complicate other infectious diseases, the one appearing with measles is to be considered of a relatively mild character.

CONTRIBUTION TO THE CAUSATION AND THE STATISTICS OF PRIMARY TUMORS OF THE BLADDER IN CHILDHOOD.4

The author reports the clinical history and autopsy report of a case of primary sarcoma of the urinary bladder, occurring in a boy two and three-fourths years of age and collates the published cases of primary tumors of the bladder, up to the present time, which occurred in childhood. He was able to gather only thirty-two cases, including his own, thereby showing the rarity of the affection in early life. In thirty cases, where the sex was mentioned, twenty cases were males, and ten females; so that also in childhood, as in adult life, the male sex seems to be predisposed to this affection. As regards the age of