

# THE MEDICAL TIMES.

VOLUME I.—NO. 15.]

KINGSTON, (CANADA), SATURDAY, OCTOBER 11, 1873.

[PRICE FIVE CENTS.

## SURGERY.

### THE ANTISEPTIC TREATMENT OF WOUNDS.

This subject has been much discussed at the recent meeting of the British Medical Association (*British Medical Journal*, Aug. 9 and 30), and in a manner likely to lead to a critical comparison of results. Mr. John Wood, in his Address on Surgery, said that, as an experimental and scientific mode of research, which may turn out to be also a converging line in surgery, he had the highest possible respect for Professor Lister's system of treating wounds.

Upon Mr. Lister's theory of germs, it is, he said, consistent and simple enough; but it is as a practical method of treating open wounds, available under ordinary circumstances in hospitals and private practice, in emergencies, and on the battle-field, that it must be estimated, and will ultimately take its place; and with that view he had put it, as far as possible, to the test. He began it at a time when King's College Hospital was in a good hygienic condition, and the cases for that time did admirably. He had some cases quite equal to any described by Mr. Lister himself. He at the same time tried the application of dry lint, without any moisture whatever, to the wound, and in many cases, especially in breast cases, the results were also perfect. In one breast case union by adhesion occurred throughout the wound. He also tried the application of the chloride of zinc solution in the manner originated by Mr. De Morgan, and very good results ensued—viz, healing with the formation of little or no pus. After about six months, there came into the hospital a very unfavourable change, and, from inquiries made at the time, he concluded that a similar condition prevailed in most or all the London hospitals. Erysipelas and its concomitant, pyæmia, began to show themselves, the former not springing up in the hospital itself, but imported with patients. The wounds now began to suppurate more, primary healing was less common, and the erysipelatous blush appeared, with blancheworthy impartiality, in cases treated in all kinds of ways, and almost as impartially on his own antiseptic side of the hospital as on his colleague, Sir William Ferguson's, non-antiseptic side. But this he felt bound to say, that there was little or no putrefaction, as evidenced by the odour, in any of his cases, which his eminent colleague shrewdly attributed to the carbolic smell overpowering all others. Upon this point, however, he did not agree with him. He had one case of amputation of the thigh for a tumour of the lower end of the femur, in a man aged about sixty. He treated it by Lister's method, carefully carried out, and, from beginning to end, there was very little discharge, and no putrid or offensive smell whatever; but the wound did not heal, the end of the bone re-

mained unadherent and devoid of granulations, and the man lingered for two months in a declining and emaciated state, and finally succumbed to chronic pyæmia with secondary abscesses in various parts. The occurrence of many other cases similar in character to this convinced him that the agencies, whatever they are, in pyæmia, operate in the general system, or, if through the atmosphere, in other channels besides the wounded part, as in cases of pyæmic poisoning from deep internal glandular pus-deposits, and in other acute and chronic tubercular affections.

In some cases of psoas abscess, treated by Lister's method, he had marked success so long as the hospital was healthy. When erysipelas and pyæmia appeared, however, cases occurred in which the pus in the abscess became putrid and offensive after the first evacuation under the spray and with all the precautions, and he was obliged to make free openings and introduce drainage-tubes, through which the abscess could be washed out thoroughly with antiseptic. Such cases showed the danger of departing, in the generality of wounds, from the old rule of providing a free exit for all purulent and offensive discharges; and, for the want of this, the exclusion of air is not a sufficient compensation. He could not, consequently, approve of the plans originated by Baron Larrey, and followed by Gosselin, and, more lately, by J. Guérin and Maisonneuve, of 'occlusion pneumatique'; the amount of resemblance to which, in Lister's method, constituted, it seemed to him, some part of its deficiencies. To a great extent, this objection also exists to the plan followed during the second siege of Paris by Alphonse Guérin, of using thick investments of compressed cotton-wool after washing the wound with alcohol, and then leaving it, without disturbance or removal of the deeper layers, for periods varying from a fortnight to two months, or even more. This plan for keeping from the wound injurious atmospheric influences, seemed to have been deduced from Professor Tyndall's experiments upon the purifying results of the cotton-filter of Pasteur. It was shown by Hervey that, as used by Guérin, it neither prevented putrefaction and fætor in the wound, nor the formation of abundance of microzoa therein. Here, again, were instances of the propriety of that regular and systematic inspection of wounds which the practice of hermetically sealing them up prevents us from obtaining.

With respect to the employment of cotton-wool combined with due drainage, he looked forward with interest to the paper promised by Mr. Callender, who has obtained much success from its use, combined with his own form of drainage-tube. Cotton-wool has one great advantage as a dressing in cases of emergency. It is usually easily to be obtained in the necessary quantities after battles and railway accidents, when it is necessary to remove patients directly after in-

juries or operations; it provides better than most other methods for the protection of the wound or stumps from injury. Tanned oakum possesses all these advantages to an equal degree, and has the superior quality of being also cooler and more antiseptic.

Professor Humphry is quite satisfied with the plan of leaving wounds and stumps uncovered by dressing, and entirely undisturbed, having only the discharges wiped or washed away. According to Dr. Weil, late assistant to Billroth, this plan is uniformly followed in the large hospital at Vienna. Here atmospheric influences have full local play, aided by the accidental contaminations of water, sponges, or tow; and yet, in the spacious and well-ventilated wards and pure air of Addenbrooke's Hospital at Cambridge, the results are far from being unsatisfactory. In a time of bad hygienic influences, epidemic erysipelas, pyæmia, or of an accumulation of wounded patients in a London hospital, it is probable that this would not be the case.

After frequent trials, Mr. Wood had come to consider that a plan comprising the free use of Chassaignac's drainage-tubes passing from the surface of the wound, or from its interior, if deep and sinuous, and with their outer extremities imbedded in cotton-wool or oakum, well permeated with MacDougall's or Calvert's powder, or other disinfectant and absorbent of discharges; the washing over the surface of the wound after bleeding has ceased with a mixture of solutions of chloride of zinc and carbolic acid or sulpho-carbolate of zinc; the same solution to saturate the lint, applied in the same way as in water-dressing, and enveloped in thin gutta-percha tissue, the whole supported by strapping and a light bandage, affords the readiest, lightest, coolest, and the most generally useful application of the antiseptic method. An outer envelope of cotton-wool or oakum, and dressing every day after the first opening of the primary dressing, complete a method from which he had obtained as good results as from any other that he had tried; and, what is perhaps important, he had found it less difficult to insure its being properly carried out.

Mr. G. W. Callender described at the same meeting (*British Medical Journal*, Aug. 30), a plan of treatment which he had followed for several years in St. Bartholomew's Hospital, and of which the results were at least as satisfactory as those following the employment of the antiseptic method, while it was much more simple. In 199 cases treated in this way, there had been six deaths; and in 28 cases of compound fracture, and 33 of amputation (including 14 of the thigh), there had been no deaths. The author insisted on the removal of foreign bodies, and expressed his objection to ligatures, as being in fact foreign substances. Instead of tying arteries, he used torsion. After all bleeding had stopped, the wound was washed with carbolic acid (1 in 20 of