

# THE DUBLIN JOURNAL

OF

## MEDICAL SCIENCE.

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### PART I.

### ORIGINAL COMMUNICATIONS.

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ART. XIV.—*A further Note on the Treatment of Tetanus with Antitoxin Serum.* By R. GLASGOW PATTESON, M.B., Univ. Dubl.; F.R.C.S.I.; Surgeon to the Meath Hospital and County Dublin Infirmary; Examiner in Surgery, Royal College of Surgeons in Ireland; Member of Surgical Council, Royal Academy of Medicine.

THE ultimate utility of serum-therapy can be gauged only by the careful tabulation of records of success and failure in the treatment of acute infective processes; and it is with the object of helping those who are working in this direction that the following unsuccessful case is published, as an appendix to two successful cases which were recorded in the February number of this journal for the current year. For the notes of the case I am indebted to my clinical clerk, Mr. F. G. Fitzgerald.

CASE.—J. H., aged sixteen, was admitted to the Meath Hospital, at 2 a.m., on Friday, 10th June last, suffering from symptoms of acute tetanus; risus sardonicus, trismus, rigidity of abdominal muscles, and arching of the back being well-marked, while clonic spasms were recurring at frequent intervals. The history elicited was, that on Wednesday evening, the 8th inst., he had received a punctured wound of the sole of the foot by treading on a nail, and had complained of pain in the neck and "rigors" the following evening, which increased so much in severity that

he was brought to the hospital at an early hour on Friday morning. The wound was touched with carbolic acid, and poulticed with boric acid; and, the gravity of his condition being recognised, he was at once given an injection of 10cc. of anti-tetanic serum; and full doses of potassium bromide and chloral hydrate were continued during the night. I saw him at 10 a.m. the same morning, and had him at once removed to a separate ward. All the symptoms had increased in intensity during the night, and, feeling that nothing except energetic treatment offered any hope of saving his life, I ordered 10cc. injections of serum to be given every four hours. On examining the seat of injury I found a punctured wound in the ball of the left foot, in which, underneath the thickened epidermis, a circular zone of dirt—presumably earth—could be distinctly seen. Accordingly, although late, I determined to freely excise the infected area, which was done by a large oval incision right down to the bone. The exposed tissues were then thoroughly cauterised with glacial carbolic acid; the wound plugged with boric wool, and a dressing applied.

At this stage the spasms were increasing in frequency and severity, though he was still able to swallow liquid nourishment, but during the afternoon it was noticed that the respiratory muscles were becoming affected, each spasm ending in a severe attack of dyspnoea and cyanosis, from which, after an interval of some seconds, he recovered.

At 6 a.m. on the 12th, the following morning—the fourth day from the onset of the symptoms, and the fifth from the infliction of the wound—Dr. Woodside, the house surgeon, was called to see him owing to the severity of the respiratory spasms, and, recognising the imminent danger of asphyxia, administered a few whiffs of chloroform, which had the effect of relieving the inspiratory spasm. This had to be frequently repeated during the short period he survived. At 10 a.m. I saw him; he was manifestly sinking, and his pulse was feeble and extremely rapid. The serum injections were continued in the hope that they might, perhaps, help to tide over the acuter manifestations of the disease. He died at 4 p.m. the same day, apparently from cardiac failure.

The portion of skin and tissue excised was sent at once to Prof. O'Sullivan of Trinity College, who found in it, along with other micro-organisms, almost pure cultures of the bacillus of tetanus.

The points of interest in the case are:—

1. The terrible suddenness of the onset of symptoms, within thirty hours of the receipt of the injury, showing a rapidity of development which the serum was powerless to overtake or neutralise.

2. The absolute inefficacy of the serum, though given in full doses frequently, to in any way modify the development of the graver symptoms, or avert, even temporarily, the fatal issue.

3. The absolute proof of the nature of the disease afforded by the culture experiments.

It may be mentioned that the second observation bears out the statement made by the authorities of the Pasteur Institute in Paris, that it is only in cases in which the onset of the symptoms has been somewhat delayed that satisfactory results have been obtained from the use of the serum in treatment.

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ART. XV.—*The Relations between Preventive Medicine and Vital Statistics.*\* By THOMAS W. GRIMSHAW, C.B., M.A., M.D., Univ. Dubl.; Ex-President, R.C.P.I.; Registrar-General for Ireland.

THIS Section, as you are aware, has been appointed by the Council of the Royal Institute of Public Health to deal with the subjects included under the comprehensive title of "Preventive Medicine and Vital Statistics." The Section is therefore pre-eminently the Section of State Medicine of the Congress.

It is with no small degree of pride and satisfaction that I find myself chosen as the President of this Section, and I have to thank the Council of the Institute for having honoured me by placing me at the head of so important a branch of this Congress.

Dublin, I think, may specially claim to be the home of State Medicine, for it was here within the walls of Trinity College that Dr. Rumsey, who has been justly styled the

\* Being an Address delivered before the Section of Preventive Medicine and Vital Statistics, at the Congress of the Royal Institute of Public Health, held in Dublin, August 18th to 23rd, 1898.