Dr. Goodall's series the average duration was over seven weeks and in my own it was five and three-quarter weeks. This may be accidental, but whether it be so or not it is certain that cases developing paralysis after having received early injections of antitoxin remain paralysed for comparatively short periods. This might be deduced from the fact that paralysis in such cases is nearly always mild in character. Moreover, it is proved by direct calculation, the average duration in cases injected within the first 48 hours being under five weeks.

In conclusion, the influence of antitoxin on diphtheritic paralysis may be summarised as follows. Up to the present the percentage of paralysis has increased on the whole. There is some evidence that large doses—i.e., not less than 4000 units—of antitoxin are more effective than small ones both in preventing paralysis and in diminishing the mortality due to it. The earlier antitoxin is given in diphtheria the less likely is paralysis to follow. Should it occur after early injection it will probably be mild and of comparatively short duration. The type of paralysis has, on the whole, become less severe or, at all events, less dangerous to life. Finally, diphtheritic paralysis has become more prone to attack the young. This change in age incidence has possibly made some minor differences in the relative frequency with which the various forms of paralysis are observed. The practical conclusion is that the full value of antitoxin is only obtained by using it early and in efficient doses. If this be done not only is life saved but tedious complications are prevented or at least deprived of their dangerous characters.

Homerton, N.E.

A CASE OF PUERPERAL SEPTICÆMIA TREATED WITH ANTI-STREPTO- COCCIC SERUM; RECOVERY.

BY C. T. B. MAISEY, M.R.C.S. ENG., L.R.C.P. LOND.

A MARRIED woman, a primipara, aged 28 years, was delivered of a full-time female child on Feb. 7th at 3 A.M. after twelve hours' labour. Apart from a slight rupture of the perineum (necessitating the insertion of one stitch) the labour was normal. For the first four days the patient progressed favourably. The temperature, the secretion of milk, and the lochia were normal and the bowels acted well on the third day. The perineum (which was examined at each visit) appeared to heal by first intention, the stitch being absorbed by the fourth day. During my visit on the fifth day (Feb. 12th) the patient complained of feeling cold and on taking her temperature I found it to be 101° F.; in other ways she appeared to be well. Her appetite was good and she slept well, but the bowels had not again acted. I ordered her to have a douche (creolin one drachm to the pint) every four hours and prescribed a mixture containing six grains of sulphate of quinine, 30 grains of sulphate of magnesia, 20 minims of diluted hydrochloric acid, and chloroform water to one ounce, hoping to find her temperature down the next day, instead of which it had increased to 103° by 10 A.M. There was no action of the bowels, the abdomen was tympanitic, and a small line of lymph was to be seen deposited on the new tissue joining the recently ruptured perineum. The douche was ordered every two hours night and day and the parts to be well dusted with iodoform after each douche. Fluid nourishment and half an ounce of whisky every four hours. Being unable to visit her again that day my partner (Mr. Rust) kindly visited her and washed out the uterus with 1 in 1000 perchloride solution. The lotion returned almost unaltered, the lochia and the milk were scanty, and the temperature at 3.30 P.M. was 103.8°. On the 14th the temperature at 10 A.M. was 104° and the pulse was 96. The patient was very restless, sick, and perspiring freely. The abdomen was much distended, more lymph was deposited on the perineum, inside and out, and the perineum was breaking down. I obtained the husband's consent to try the anti-streptococcic serum and soon obtained a supply. The first injection of 16 cubic centimetres was given at 2 P.M. on the same day, the temperature being 104° and the pulse 96. On visiting the patient at 9 P.M., seven hours after the injection, she volunteered the

statement that she felt much better; her sickness had stopped and her temperature had fallen to 102°. On the 15th the temperature at 10.15 A.M. was 101°, the pulse was 84, and the perineum was broken down but the lymph was disappearing. A second injection of 10 cubic centimetres was given at 10.30 A.M. The temperature at 9 P.M. was 100°, the pulse was 82, and the patient was feeling better. On the 16th the temperature at 10.30 A.M. was 99.5° when a third injection of 10 cubic centimetres was given. The patient jumped out of bed in the afternoon delirious and on visiting her in the evening at 9 P.M. I found her very restless and inclined to be maniacal, so I gave her a chloral draught which produced seven hours' good sleep. The temperature was 99°. On Feb. 17th, the tenth day of confinement and the third from the first injection, I found the patient's temperature and pulse to be normal. She was taking food and she felt well, the perineum was granulating, and all the lymph had disappeared. The source of the infection was a great puzzle to me, as strict antiseptic precautions were used both at the time of delivery and afterwards. The perineum was sutured with carbolised gut and a hot douche of 1 in 1000 of perchloride was given after the application of the stitch and the parts were well washed with a solution of the same strength at the time. Afterwards the nurse washed the patient six times a day with a creolin lotion (one drachm to the pint), a fresh clean rag being used each time and an antiseptic powder being dusted on the perineum after each washing. The bed and the patient's linen were changed often, a plentiful supply of clean napkins was provided, and the room was well ventilated daily. I could not solve the mystery for a few days. In all the other cases in which the same instruments had been used and self attended the patients were doing well, so I turned my attention to the nurse who was a "friend of the family," and who appeared to be a very clean, conscientious, attentive woman and who worked splendidly throughout this terrible illness. I examined the nurse and found that she had a slight discharge of pus from the nose for which she usually used an antiseptic douche, but had been unable to do so during her attendance on the patient. This appeared to me to solve the puzzle. The infection had not taken place, I think, at the time of delivery or the perineum would not have healed by first intention and the fever would have appeared earlier; but the patient was infected later, during the nurse's ablation of the parts, the streptococci finding a very suitable medium in the newly-formed tissue joining the ruptured perineum. I am sorry that a cultivation was not taken, but the cause of the patient's illness can hardly be doubted, seeing how admirably the serum answered in this case when the patient was rapidly nearing the end under antiseptic, antipyretic, purgative, and stimulant treatment. I have reported this case for two reasons: (1) the interesting and puzzling source from which infection appears to have taken place; and (2) being a comparatively new treatment I think it to be a duty to record either failures or successes under its use, and this case may, I think, be considered to be one of the brilliant successes.

Manchester.

SEQUEL TO A CASE OF DIABETIC COMA SUCCESSFULLY TREATED BY SALINE TRANSFUSION; DEATH 243 DAYS AFTERWARDS FROM COMA.

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In a former number of THE LANCET¹ I reported the case of a diabetic patient who was admitted into the Newcastle-upon-Tyne Royal Infirmary in a state of coma for which he was successfully transfused. Previously to detailing the remainder of the story I shall briefly enumerate a few of the salient points of the illness. The patient, who was a coal-miner, aged 30 years, was admitted into the infirmary under my care for the first time on June 25th, 1898, suffering from diabetes of eight months'

¹ THE LANCET, August 13th, 1898, p. 401.