

The other case in which the disturbance was marked, the reaction was noticed five days after the injection, the body being covered by a rose rash, associated with swelling of the hands and feet. In this case the disturbance in temperature was not great, the maximum 99.6° , which occurred the same evening the eruption was seen; vomiting was marked, but of short duration, lasting only one afternoon, and all symptoms had disappeared in thirty-six hours' time.

In the remaining two cases of the four there was nothing noted other than a scarlatinal-like eruption, which covered the whole body. These two cases were isolated, but readmitted to the wards twenty-four hours after isolation, all traces of rash having disappeared. In one of these cases the erythema appeared five days after the injection; in the remaining case it was only twelve hours. No variation in temperature noted.

Of the five purpuric rashes two alone, as before mentioned, should be described. Of the other three two were in infants under eight months of age, one suffering from congenital syphilis with associated intestinal disturbance, the other a case of marasmus; the third was a case of empyema in a girl one and a half years of age. All three of these patients died.

The character of the rash in all was petechial, and was noted in the case of congenital syphilis four days before death. Antitoxin had been given the day before. In the case of marasmus the day of death, twenty-nine days after the administration of antitoxin, and in the case of empyema, two days before death, the antitoxin had been given a week previous.

Two true purpuras remain—one a case of morbus coxæ in a quiescent state, the patient going about with a hip splint. The effusion was noted on the third day on the outer surface of the thigh, and covered about two-thirds of that surface. The injection had been made in the buttock of the same side, but the local reaction had completely disappeared at the time of effusion. In the evening of the same day a purpuric rash appeared on the arm of the same side. There was no elevation of temperature at the time the rash was first seen, but for the following three days the temperature was slightly elevated, possibly due to absorption of fibrin ferment.

The pigmentation disappeared slowly, going through the various color changes when the patient was discharged on August 2nd, twenty-three days after the injection had been made. It will be seen that this also occurred after the injection of July 10th.

The second, a case of middle-ear trouble, where the purpuric area occurred at site of injection, there was a local urticaria associated with effusion of blood. This type has been named *purpura urticans*. There were no constitutional symptoms, except some slight headache.