

elevations of temperature which were not immediate and which did not occur in conjunction with any eruption or other manifestation of disorder need not be included. On going over a great number of temperature charts I found that there was as great variation of temperature not attributed to any cause before the use of the serum as after.

A visiting physician is very apt to attribute any rise in temperature to antitoxin. It is the one constant factor present to which suspicion may be attached, and acts as a good scape-goat, but from the very few times it is made use of by them, we may judge how infrequent such a rise in temperature is. As a matter of fact, I find from the records the rule is that there is no change in temperature. In the few cases in which there was found any such change, the temperature is oftener sub-normal for one or two days than elevated. In those cases in which there was any elevation of temperature it was remarkable that in nearly every case it occurred on the surgical side, and in those listed as suppurative. I attempted to strike percentages, but found it such a complicated matter that I, of necessity, abandoned the attempt.

Before leaving the general constitutional disturbances produced, we may cite the single case in which there was found any kidney change. The patient was a girl of six years of age, suffering from morbus coxæ. After the sixth injection on November 3rd she developed general urticarial symptoms. On November 27th the injection was again given, and the patient allowed up with hip splint. On December 13th the temperature was elevated, and urine showed blood, some pus and epithelial, and blood casts. On December 30th antitoxin was again given, but did not increase the kidney symptoms, for on December 31st we have a note that all traces of blood and albumen had disappeared. None was noted after this, although the patient remained in the hospital for some months, and serum was regularly given.

Before concluding I might simply state the objections made to its constant use by some of the visiting staff—objections based on last year's observation.

One objection was that it in some way renders children more liable to intestinal disturbance, and that their general health is impaired by its constant use, as shown by eruptions.

The opinion of the man who makes this statement is founded on one of the cases of petechial eruption, the case of empyema, one and a half years of age, which developed the rash a week after the administration of the serum, and who died some few days later. This case developed a catarrhal diarrhea, but is it not more likely that the petechial eruption was due to absorption of toxin from the intestine? I might add in this connection