

The second was most peculiar. After the fifth administration, marked local brawny induration developed with elevation of temperature and suppuration occurred. The visiting physician requested that no further injection of antitoxin be given, but after seven months, when a change was made in the house staff, antitoxin was inadvertently used. The patient developed marked general constitutional disturbances, lips and eyelids became swollen with giant urticarial elevations, and there was marked prostration. This case, instead of becoming immune to antitoxin, increased in susceptibility to the serum. All of these cases, it may be noted, were surgical and suppurative in character. Whether the infection comes from within or from without, is doubtful. It is probable that it came from within. Bacteria are being constantly taken up by the blood stream, and as we know that the bactericidal property of the blood is lowered after chronic suppurative processes, bacteria would find a good nidus for development at the point of injury. For were this not so, why should we not find local inflammatory reaction in patients, in the medical wards, of just as poor vitality?

Before taking up the general disturbances, and in connection with the case last mentioned, we might again consider the question of immunity to antitoxin. That such immunity is produced is proven conclusively to my mind from the following facts:

Whereas,—Of the 1,056 injections recorded, 384 were primary, and of all eruptions which occurred 68 per cent. developed after these 384 primary injections. Only 32 per cent. of all eruptions occurred in the 672 injections which remain. A fact may be noted which is remarkable in itself, that only in three cases patients developed more than one rash, and that in each of these cases the eruption occurred after succeeding injections.

GENERAL CONSTITUTIONAL DISTURBANCES.

I might say in this connection that it is the exception that any such disturbance occurs, and that of the 1,056 injections which I have noted, with the exception of the few cases reported in which there was disturbance at the time of eruption, there were very few who manifested any symptoms whatever. We will, however, consider the variations of temperature which did undoubtedly occur, and as we know how easily the temperature of children is affected, this, I think, may be taken as a fair criterion of the amount of general constitutional derangement produced.

It is extremely difficult to separate elevations of temperature which occurred in the interval between administrations and to say what is due to antitoxin and what to other causes, but