

acid, was injected hypodermically in scarlet fever patients. The author thinks that both infection and intoxication may be amenable to the action of a specific streptococci serum. Out of 699 children suffering from scarlatina 84 were treated by serum injection, and the cases then divided into four classes: (1) Slight, (2) moderate, (3) severe, (4) lethal. In the first observations treatment was begun too late, and the quantities of serum used too small, better results being obtained later, when these mistakes had been corrected. The single dose of serum varied from 30 to 180 centimetres, the latter being the quantity generally employed by the author. A second injection was frequently administered. All of the first division, including five cases, recovered, which would no doubt have been the case had no serum been used, mild cases of scarlatina invariably recovering. Those in whom the symptoms were moderately severe are contained in the second group, all of whom recovered. In the third case, containing those in whom the malady was severe, 28 in all, only one died. The lethal cases, contained in the fourth class, were 34, of whom 15 died. From these cases, only one thing is clear; if treatment is to be of any use it must be commenced early in the disease. The mortality increases according to the lateness of the period at which the treatment is commenced. If the serum was injected on the third day the mortality was 14.29 per cent., rising to 50 per cent. when delayed until the ninth day. When an early injection has been made with the proper quantity, the result has been a marked improvement, either preventing the development of the rash or causing it to disappear much before the usual time. Previously high temperature fell, nervous disturbance was alleviated, and heart weaknesses were favorably influenced also. Apparently, too, throat complications were less marked. Certainly the treatment did not cause nephritis even when used in large doses, though it is impossible to say whether throat and ear complications were less frequent. It is worthy of note that on the failure of supply of the special serum and the employment of normal blood-serum and the antistreptococcic serum of Marmorek, no influence was made upon the course of the disease by the latter. As regards the immunizing power of this serum, the author does not make any statement, on account of the uncertainty as to the incubation period of the disease, and also because of the small number of cases observed. It is something to be able to state that no untoward results whatever were noticed as regards this treatment, and as a result of his labor the author recommends the adoption of this method of dealing with scarlet fever.—*Pediatrics*.