

methods must prevail, but clinical methods based on the deductions of bacteriological science.

But to return to our subject: 1st, A diphtheritic angina may be accompanied or followed by a scarlet rash, which may or may not be scarlatina.

In my first year in practice I was called to see a child with a pseudo-membranous sore throat, which I pronounced to be diphtheritic. On the fourth day the mother called my attention to a bright red rash which had appeared on the arms, the chest and abdomen. I was anxious for a few days lest I had a scarlet fever case to deal with as well; but the rash soon disappeared, and without any aggravation of the constitutional symptoms the case proceeded to recovery.

This case is a type of many others. The occurrence of rashes with diphtheria has been referred to by many writers. In the 1883 edition of Meig's & Pepper's work, the following paragraph occurs in the article on "Diphtheria":

"In a small proportion of cases an eruption resembling that of scarlet fever appears at irregular intervals in the course of the disease. It seems that this eruption lacks the punctated appearance of the scarlatinous rash, and the reports of it are scarcely numerous or accurate enough to enable us to say positively that intermingled cases of scarlatina have not been mistaken for diphtheria, or that the two poisons have not been acting jointly."

Later observations are, however, more accurate. Osler describes these rashes as follows: "The erythema in diphtheria may appear early before the throat symptoms are well developed, or as they are appearing, in which case it is usually slight and disappears quickly. There is also, when the disease is at its height, a later erythema, which may be very diffuse and intense, and the occurrence of which may render it very difficult to determine the true nature of the trouble."

J. Lewis Smith speaks more definitely still of these rashes. Here are his words: "The early rash in diphtheria is an erythema fugax appearing and disappearing, common to all the febrile and inflammatory affections of childhood, and which does not present any peculiar characters in diphtheria." Of the later erythema, he says that it resembles measles more than scarlet fever; is found only in very grave cases; is an evidence of septicæmia, and is therefore a very grave omen.

This, then, is as definite a statement as we are able to make at the present time in reference to these rashes. Whether they are erythematous or scarlatinal must be judged from the general symptoms. There is no one symptom which we can single out and say that it is absolutely diagnostic, not even desquamation. Some of the sequelæ might be of more use to us; but to wait for them is unsatisfactory. We do not know what the specific germ of scarlet fever is, and as we have assumed diphtheria in the beginning, bacteriology is of no avail. We must depend on general grouping of symptoms and on the possibility of contagion.

2nd. We will now pass to the second part of the paper—an undoubted scarlet fever may be accompanied or followed by a pseudo-membranous angina which may or may not be diphtheritic.

Since the discovery of the Klebs-Lœffler bacillus, a great deal of attention has been given to these pseudo-membranous inflammations of the throat, and it is now known that not only diphtheria, but also scarlet fever, measles and croup may be and often are accompanied by a pseudo-membrane. The literature on this subject during the last few years is extensive. In 1889, Prof. Prudden, of the College of Physicians and Surgeons of New York city, examined microscopically the pseudo-membrane from