

were the rise of temperature and the eruption. The catarrhal symptoms which we are taught to regard as the only really characteristic ones in the early stages of the disease were entirely absent in about 5% of the cases. The mouth rashes of Guersant and Blache and of M. Girard were present in only about 25 per cent.

The initial stage in this epidemic was very prolonged, ranging from 4 to 14 days, the average being about 6. The eruption of whatever type appeared first on the face, and in almost every case was indistinctly visible under the skin for from 6 to 48 hours before its appearance as a distinct rash.

In the 200 cases of hæmorrhagic type—in which the spots were of a more or less livid hue with ecchymosis of various sizes and shapes—slight hæmorrhages from the mucous cavities were very common. Almost all the adult females menstruated during the attack, and 3 female children aged respectively 3, 7 and 9 had a similar discharge from the genitals. Hæmorrhages from the nose were the most common, and usually pretty severe, but spitting of blood and discharge of it from the rectum and bladder in small quantities was not uncommon. In five cases before the eruption appeared the patients became for two days literally black and livid all over, causing their friends great anxiety and creating tremendous consternation among their neighbors. They had exactly the appearance of suffering from extreme asphyxiation, but there was no trouble in breathing and no particular lung symptoms. The type of the disease in these cases was not due to any lack of resisting power on the part of the patients, nor to their surroundings, for they all happened to occur in healthy young adults in easy circumstances. The only peculiarity about them all was that they were of dark complexion, and perhaps therein the whole explanation might be sought out. Al-

though severe, these cases were not fatal, nor did they differ otherwise than in appearance from hundreds of others. The rash in the hæmorrhagic cases lasted very much longer than in the other varieties, persisting as discolored spots in some cases for weeks.

The several other varieties of rash—"papulosi," "vesiculosi" and "confluentes"—especially the latter—were frequently met with; but after careful observation I came to the conclusion that, in this epidemic at least, the eruption, whether in variety, time of appearance or amount, had little or nothing to do with the progress or severity of the attack. That the different types were simply modifications of the same disease was shown by the fact, that in several cases the mild type begot the malignant and hæmorrhagic, and *vice-versa*.

The modifications of the disease were so numerous and the appearance of the eruption so variable, that for me at least it would have been utterly impossible to diagnose with any degree of certainty any stray cases of rotheln or scarlatina which might have appeared during the course of the epidemic.

The temperature was found to vary from 100 to 103 degrees, anything over 103 being invariably due to some complication—notably catarrhal pneumonia. The average temperature in the mild cases was 101 degrees, in the severe or malignant cases 103 4-5 degrees, and in the hæmorrhagic cases 102 degrees.

In all the really severe cases there was some complication present—bronchitis being the most frequent and pneumonia the most fatal. Some authors state that when a pulmonary complication begins in the prodromic stage it almost always modifies the eruption in some manner, either retarding or rendering it irregular or imperfect; and that when it dates from the second stage it may cause a partial or complete retrocession of the