

days previous to onset. During this period nothing is complained of by the patient as a rule, although general malaise and headache may be present.

In recent outbreaks, usually the initial symptoms have been very slight, and often the patients have suffered so little discomfort that it has been hard for them to fix any time for the onset. However, in the severer cases at Berlin, such did not obtain. Usually the patient complained of a chill, perhaps several, in the first twenty-four hours. Following this was the intense frontal headache and severe pains in the small of the back, shooting down into the thighs. These are very constant, and with them vomiting may be associated. The temperature rises rapidly to 103° to 105° or 106° in children, pulse becoming rapid, and patient restless. Called at this stage, the patient presents the condition of one in an acute fever, but nothing diagnostic presents, unless one is put on his guard by the pains in back and limbs which are more severe than in any other eruptive fever.

The fever continues usually from three to four days, the temperature falling to normal, or nearly so, with the appearance of the papules. The mildness or severity of the initial symptoms does not give definite information regarding the severity of the attack.

Preceding the papules are to be seen red macules, minute and disappearing on pressure. These appear first on the forehead and wrist. However, they may be more general, and may assume very closely the appearance of a scarlatiniforme, or again of a measly rash. One case that I saw with the Medical Health Officer had a beautiful scarlatinal rash, which would undoubtedly have been diagnosed for scarlet fever had not the small-pox epidemic been present. In this patient, on the following day, the shotty papular condition was present on the forehead and rendered the diagnosis quite certain.

The typical eruption passes in succession from macule to papule, to vesicle, and to pustule, then drying up and scaling off. In certain mild cases and in varioloid it apparently aborts between the papular and vesicular stages, or between the vesicular and pustular, no suppurative fever occurring, or very slight. Ordinarily on the fourth day macules appear first on the forehead. On the fifth day these are all over the body, and those on the face have become papules and are distinctly shotty to the feel. On the sixth day the papules become vesicles with umbilication, which is indicative of the approaching pustulation, the depression being the point of primary necrosis. The vesicles are multilocular and do not collapse on pricking. On the eighth day the vesicles have become pustules, globular in shape, greyish in color, due to pus. The surrounding skin is injected and swollen.