

hard shotty papules. The vesicular stage was ill-marked. In many instances the papules passed directly into the pustular stage, yellow cloudy centres appearing, rapidly developing into pustules with well-marked arcolæ.

In many papules only the central part of the papule became pustular and rapidly died into a crust which fell off, leaving a raised hard papule with a depressed centre or a flat top. These papules with the central depression were seen as early as the sixth and as late as the fourteenth day of the eruption. The complete pustules died up and formed crusts which always appeared first and were most thickly set on the face. Suppuration never extended deeply and in no instance was a depression noticed after the separation of the crusts.

The time occupied by the evolution of the lesions was distinctly shorter than in ordinary smallpox. Pustules had usually passed into crusts by the 5th or 6th day of the eruption, and in no case were pustules seen after the 9th day, whilst in ordinary smallpox the pustules dry or rupture about the 10th or 11th day.

Secondary fever was not present in any case and its absence is to be attributed to the superficial character of the suppuration.

Welch regards the comparatively slight changes in the skin as the most striking feature of the disease. He points out that "the lesions, instead of actively involving the deeper layers of the cutaneous integument appear to develop between the outer epidermis and the layer of cells covering the papilla, and in the later suppurative changes the true skin becomes only mildly involved. Hence dermatitis and the consequent intumescence, so common on the face in variola vera, are either absent or very mild, and the necrotic changes are of course, greatly limited. The pustules, therefore, desiccate rapidly, forming comparatively thin scabs, which, when they have fallen off, leave pigmented spots and but little or no pitting. Even in cases exhibiting a considerable degree of confluence on the face the eruption behaves in the same way."

The general condition of the patients presented a remarkable contrast to ordinary smallpox. After the appearance of the rash they felt perfectly well, and amused themselves by smoking, playing cards, or walking about. Secondary fever was entirely absent even in cases with a thickly set pustular rash.

The protective influence of vaccination was very clearly demonstrated in the cases observed. Only two of them had been vaccinated; one of these presented three good scars and had a rather copious eruption. In the other vaccinated case there was only a single scar. Neither of these individuals had been revaccinated. In the cases reported by Welch,