

TWO CASES
OF
SMALL-POX INFECTION

COMMUNICATED

TO THE FŒTUS IN UTERO UNDER PECULIAR CIRCUMSTANCES,

WITH

ADDITIONAL REMARKS.

BY EDWARD JENNER, M. D. F. R. S.

Read April 4, 1809.

IN my second* and third treatises † on the vaccine disease, I endeavoured to call the attention of my readers to some physiological facts respecting the nature of the small-pox infection which I considered of great importance, foreseeing that they would eventually become connected with vaccination.

* Farther observations on the Variolæ Vaccinæ, published in 1799.

† A continuation of Facts and Observations on the Variolæ Vaccinæ, published in 1800.

My own observations, and the accumulated evidence of others, have furnished me with numerous instances of incontestible, and sometimes violent symptoms of small-pox occurring in persons who had previously gone through the disease, either in the natural way or by inoculation; mildly or severely. The skin we know is ever ready to exhibit, though generally in a very limited degree, the effects of the poison when inserted there, and how frequently do we see eruptions on persons much exposed to the contagion, and these sometimes preceded by sensible illness! Yet should any thing like an eruption appear, or the smallest degree of indisposition occur on the insertion of the variolous matter in those who have gone through the cow-pox, my assertions respecting the peculiarities of the disease might be unjustly discredited.

In the publications above mentioned, I have given the particulars of several instances of severe disease from variolous contagion, occurring in persons who had incontestibly gone through every stage of small-pox at a former period. The subjects of three of these cases were medical practitioners, two of whom had inoculated themselves by way of experiment, and the other received the disease by the contagious effluvia of a patient, in the course of an assiduous attendance. In another case, the subject was a nurse-maid, who also caught the disease by effluvia; and in another, extracted from the Memoirs of the Medical Society, (which is one of the most remark-

able cases on record) the patient had the small-pox a second time with such severity as proved fatal, though the first attack had been of the most malignant kind.

These circumstances have led me to entertain the opinion, that the susceptibility to receive variolous contagion always remains through life, but under various modifications or gradations, from that point where it passes silently and imperceptibly through the constitution (as is frequently the case with cow-pox) up to that where it appears in a confluent state, and with such violence as to destroy life.

It is only under particular circumstances, that any proof of the presence of small-pox can be adduced in those cases, in which it passes through the frame without producing eruptions, or in any perceptible degree disturbing the animal functions. Such proof however, is afforded by the obvious infection of the fœtus before birth communicated through the mother, herself being already secure from any visible occurrence of the disorder.

The following remarkable cases will exemplify this fact.

About five years ago, I was requested by Dr. Croft to vaccinate the infant of Mrs. W. a lady in Portland Place. The vaccine fluid, which was inserted fresh from the arm of another infant, pro-

duced scarcely any effect beyond a little efflorescence on the part, which in a few days disappeared. On expressing my surprise at this, such an occurrence happening very rarely, Mrs. W. soon removed my embarrassment, by the following narrative.

A few days previous to her confinement, she met a very disgusting object, whose face was covered with the small-pox. The smell and appearance of the poor creature affected her much at the time; and though she mentioned the circumstance on her return home, she had no idea that her infant could suffer from it, having had the small-pox herself when a child. During a few days after its birth, the little one seemed quite well, but on the fifth day it became indisposed, and on the seventh the small-pox appeared. The pustules, which were few in number, matured completely. Dr. Croft, who attended her, being curious to know the effect of inoculation from one of the pustules, put some of the matter taken from one of them, into the hands of a gentleman eminently versed in that practice, which produced the disease correctly. Mrs. W. was not sensible of any indisposition herself from this exposure, nor had she any appearance of the small-pox.

This case then decisively proves, that the small-pox virus may affect the human frame, even to its inmost recesses, although apparently secured from its effects, and yet give no evidence of its presence by exciting any perceptible disorder.

Another case, in its general character similar to the above, was lately communicated to me by Mr. Henry Gervis, a surgeon of eminence at Ashburton, in Devonshire. Mr. Gervis says, "The small-pox having appeared in the village of Woolson Green, about three miles from Ashburton, on the 6th of May, 1808, I vaccinated a poor woman, the wife of James Baskwell, who was in the last month of her pregnancy. Her three children had been inoculated the preceding day with variolous matter by the surgeon who attended the poor of the parish, and who had very properly declined inoculating her also from her particular situation. I made two punctures in each arm, each of which fortunately succeeded, and she regularly passed the disorder, complaining only on the tenth and eleventh days, when the areola was most extended as is usual. I saw her very frequently during the progress of her disorder, and once or twice after its complete termination: I therefore can speak positively, that during that time she laboured under no symptom but what is connected with the cow-pox. From this period she continued perfectly well; and on Saturday last the 11th instant, she was delivered of a female child, having at the time of its birth many eruptions on it, bearing much the appearance of small-pox in the early stage of the disease. This event happened five weeks after her vaccination, and one month after she had been exposed to the variolous infection of her own three children, and that of several other persons in the same village. On the 14th I visited the child again,

.T

when I found the eruptions had increased to some thousands, perfectly distinct, and their character well marked. Many among the most respectable physicians and surgeons from Totness, Ashburton, and the neighbourhood, were kind enough, at my request, to come to the poor woman's place of abode, and witness the fact. But to put the matter beyond all doubt, I armed some lancets with the virus, and produced the small-pox by inoculating with it. On the 18th the infant was seized with slight convulsions, and on the morning of the 19th it expired.

“ In addition to the circumstance of the mother's conveying the variolous infection to her unborn child, without feeling any indisposition from its action on her own constitution, I must remark that there cannot be a stronger proof of the efficacy of vaccine inoculation than this case affords. But happily proofs are not wanted, or I could give my testimony to a great extent.”

Without producing more examples of a similar description at present, though many are before me, I shall conclude by observing, that a fact not unlike the preceding fell under the observation of Dr. Mead, who, in his discourse on the small-pox (chap. iv. page 337, edit. 1772) says, “ A certain woman, who had formerly had the small-pox, and was now near her reckoning, attended her husband in the distemper. She went her full time, and was delivered of a dead child. It may be needless to observe that she did

not catch it on this occasion ; but the dead body of the infant was a horrid sight, being all over covered with the pustules ; a manifest sign that it died of the disease before it came into the world."

My principal object in the foregoing observations is, to guard those who may think fit to inoculate with variolous matter, after vaccination, from unnecessary alarms : a pustule may sometimes be thus excited, as on those who have previously gone through the small-pox ; febrile action in the constitution may follow ; and, as has been exemplified, a slight eruption.

At the commencement of vaccination I deemed this test of security necessary ; but I now feel confident that we have one of equal efficacy, and infinitely less hazardous, in the re-insertion of the vaccine lymph.

November 18, 1808.