

AN INQUIRY INTO THE SUPPOSED FAILURES OF VACCINATION, AS A PREVENTIVE TO THE SMALL-POX; WITH A FEW OBSERVATIONS ON THE TWO DISEASES.

It has been thought, that, previous to the introduction of Vaccination, the Small-Pox proved more fatal to mankind than even the Plague itself. The latter is peculiar to certain countries, whereas the former commences its ravages throughout the world. But this is not all: it has the power of bringing certain hereditary diseases into action, which might otherwise have lain dormant in the system. Scrophulous, or the King's Evil, for instance, is sure to be roused by the Small-Pox; perhaps in some instances it even lays the foundation for this disease.

Some will say, "But the Small-Pox may be disarmed of its terrors, in a great measure, by Inoculation?" I grant it, so far as relates to the individual; but here it is that the superiority of Vaccination is evident;—the Vaccine Disease cannot be communicated through the medium of the air, but only by absolute contact, and not even then, without being applied to a wound; whereas the Small-Pox, when once introduced, we know not when or where it will stop. The inoculation of one may prove the death of hundreds. It is about two years since that we were visited with this dreadful malady; and I speak within bounds when I say, that at the least, one hundred in this and the adjoining town fell its victims: the havoc it made in the two counties (for it spread I know not how far,) was shocking indeed. I distinctly traced the disease from London. A child, on a visit to its friends in town, was hurried home in consequence of this disease making its appearance in the family. A few days after its return it fell sick of the Small-Pox; a child in the adjoining house was next taken ill; and from them it spread gradually over Windsor and Eton, and all the neighbouring country for several miles.

It perhaps admits of some doubt whether the practice of Inoculation for Small-Pox has been really useful to mankind. It is very certain that it has tended very much to perpetuate the disease. It is a rare thing now-a-days to hear of an adult that has not had the Small-Pox (unless the person has been vaccinated; ) whereas previous to the custom of Inoculation, great numbers went through life without being affected with this disorder.

The Vaccine Disease, when perfectly regular, is as great a security against the Variolous as the Small-Pox itself. In the last three years I have seen one decided case of Small-Pox occurring twice in the same individual, and another case where there was great reason to suspect it. Within this period I have vaccinated upward of five hundred, many of whom lay in the same bed with their brothers and sisters dying of the Small-Pox, and when it was so extremely virulent as to excoriate the mothers' nipples, and cause ulcerations on the arms of the nurses; and yet, in every instance where the progress of the disease had been regular and uninterrupted, with perfect safety. To prove this on a larger scale:—In the Report of the Small-Pox Hospital, of London, for December 1802, it is stated, that 2,500, had been vaccinated at the Institution, were afterwards inoculated with Small-Pox matter, and exposed in an hospital full of its infection, without effect. Why is it then, it may be asked, that we hear every now and then of failures? The cause is not in the inefficacy of Vaccination, but in the inattention of nurses and parents, doubtless in many cases,

from ignorance; but I am sorry, from experience, to add, in numerous cases from want of attention to the directions of the medical attendant. The poor are too apt to think, that the vaccinator, in directing the parents to let him see their children on certain days of the disease, does it with a view solely of taking matter to vaccinate others; whereas, in fact, his motive is the security of the vaccinated.

I feel particularly desirous of impressing on the minds of my readers the following observations on the Cow-Pox, and to remove that too prevalent opinion, that, if a pimple arises on the part vaccinated, the disease has taken effect, and the person is safe; the which I will prove to any unbiassed mind to be a rich source of the prejudices against the Cow-Pox, and of the occasional supposed insecurity of Vaccination.

The Cow-Pox, is a disease which requires the nicest attention, both on the part of the practitioner and the person vaccinated. The person ought to be in perfect health; for it requires, as it were, the undivided attention of the system, more particularly should the person be free from any eruptive complaint. And injury of the pustule before the twelfth day is hazardous; and unless one pustule or pimple\* has been permitted to go through every stage, without suffering the slightest injury, the person cannot be considered as secure. It being generally known that a redness around the pustule at a certain period is the criterion by which medical men form their opinion of the security of the vaccinated, parents are too apt to neglect the instructions given them at that most important period of the disease: it should be well remembered by every parent, that, although none can be considered safe without the *arcola*, or inflamed circle, all are not safe that have it; it is only one stage of the disease, and redness may be produced by friction of the clothes, by a fall or blow; in short, by any kind of rude treatment which would produce a slight degree of inflammation in any common pimple: it is by taking the appearance of the pustule, with the inflamed ring, conjointly, that we can alone judge of the security against Small-Pox. † Perhaps it will not be uninteresting to my readers to be informed, that, from the period the matter is inserted into the arm, to the seventh or eighth day, it is entirely a local disease. The pustule now contains a colourless limpid fluid, like water; about this time a new process commences; the neighbouring absorbent vessels take up the matter, and carry it into the circulation; it is now become a constitutional disease; the whole mass of blood is affected, and a slight degree of fever is produced; the *arcola*, or inflamed circle, is a specific inflammatory action, produced in consequence of, or during its absorption.

There are a few that ground their objections to Vaccination on the notion that we are entailing, by so doing, another disorder on the human frame, and interfering with the dispensations of the Almighty. But this latter argument would equally apply to all medical aid; and respecting the former, I have often thought that the peculiar and specific character which the Vaccine Disease puts on when it becomes a constitutional disease (and when alone it is efficacious,) contrasted with the different appearance when only a local one, strongly tend to prove that Providence has thus marked it strongly for our guide. He has given us the means of eradicating from the earth perhaps the greatest scourge to mankind.

In many countries where Vaccination is insisted on, by the State, the Small-Pox is totally unknown, where a few years since it used to rage with unbounded fury. England only, happy England! too free even

to compel its inhabitants to do what would be so much for their interest, and who enjoys the honour of having given birth to the man who made this interesting discovery, stands almost alone in Europe, a prey to Small-Pox. It is here only that prejudices exist against the Cow-Pox; here only that so many despise that mean which Infinite Wisdom and Mercy devised for the amelioration of the miseries of human life.

The following statement of 508 cases will prove to any unprejudiced mind that the cause of failure is to be found not in the insecurity of Cow-Pox, but from ignorance, inattention, and the too fond wish among the poor of retailing any thing that is wonderful. If a child happens to have any thing like the Small-Pox after vaccination, no old gossip thinks of making the inquiry, Did you obey the instructions of your medical attendant? or, is it any other pox? No; all this is taken for granted: the whole parish becomes acquainted with it; each adds a little to the wonderful tale, and relates another case in point; and one case soon becomes magnified into a score: perhaps, at length, it comes to the knowledge of a medical man; he calls to see the child, and finds it, after all, a severe case of Chicken or Swine-Pox; or, if really Small-Pox, on inquiry it is found that the mother neglected the instructions of the vaccinator, for fear that he should take matter from the arm, or some other such foolish idea. The same gossip, who took so much pains to spread the alarm, will, if possible, with even more carefulness, conceal her error; and, if taxed with it, will shrug her shoulders, and, with a significant look, hint that all is not right. This is not a supposed case, nor an exaggerated one: I have frequently traced the most wonderful stories to such an origin.

There is another fruitful source of error, and which I am sorry to notice, but I feel it my duty so to do. Many benevolent ladies and gentlemen are in the habit of vaccinating their poor neighbours without having previously studied in books, and been instructed by medical men, as to the certain signs of safety; they may be perfectly competent to judge of common cases; but, from the presence of other diseases, not to be discovered at the period of vaccination, and other causes, there are shades of difference where there may be a little doubt; and, in all these cases, re-vaccination at some distant period is necessary. I question whether it would not be better for the operation to be performed always by professional men, so many of whom are willing to vaccinate gratuitously, all that apply; independent of the numerous public institutions, where no poor person would apply in vain.

Respecting the following statement of 508 cases, it may be remarked, that they were vaccinated at a Dispensary; and all were strictly desired to attend on the 8th and 10th, 11th, or 12th day of the disease, according to the maturity of the pustule on the 8th day. Of this number there did attend, as directed,

On the two days . . . . .	354
On the 8th day only . . . . .	90
Not at all . . . . .	47
Applied too late to prevent the Small-Pox . . . . .	17
Total doubtful from neglect and inattention . . . . .	154 154
Number Vaccinated . . . . .	508
Of the 354 that did attend on the two days mentioned, I found—	
To be perfectly safe . . . . .	284
Irregular, in its appearance . . . . .	22
Regular, but having an eruption at the time . . . . .	8

Injured by rubbing, &c. . . . .	40
Total not safe . . . . .	70 70
Number that gave me the opportunity of judging whether the disease was regular . . . . .	354
Number that, by neglecting to attend on the days mentioned, prevent me from knowing whether they have had the disease, so as to prove security against Small-Pox . . . . .	154
Total Vaccinated . . . . .	508

Of the seventy doubtful cases, several have been revaccinated. Some appeared not to have been sufficiently affected; others would not take the disease again, and were consequently secure from the previous Vaccination. The eight cases with an eruption were vaccinated as a temporary expedient only, the Small-Pox being in the same room.

It is principally among the poor that prejudices against Vaccination exist; and, if we take the above statement as a sample, and apply it to the whole population, is it a matter of surprise that failures occasionally occur? Is it not rather matter of astonishment that they do not occur much oftener, when we find that, on an average, a third of the whole, either by their ignorance or wilful neglect, put it out of our power to know whether the Cow-Pox has had fair play? whether the whole body has been subjected to its influence; or whether it has been merely a local disease, a mere pimple, which has no more power of preventing the Small-Pox than the ink in my pen.

During the last six years I have diligently sought for cases of Small-Pox after Vaccination, among my own patients, and in the neighbourhood where I have happened to be; but, although I have heard of many, and have spent much time in tracing these reports, I have never seen a single case of Small-Pox after Vaccination, where I could satisfy my own mind that the progress of the disease had been fairly watched, and a decided opinion given by the Vaccinator that the person was safe. One singular case has occurred in my Dispensary practice, when the Small and Cow-Pox appeared at the same time to affect the constitution equally; but this case made numerous proselytes to the Cow-Pox, who were before its determined enemies. How, indeed, could it be otherwise? Fancy to yourselves three children in one room with Small-Pox: one lying on the bed a corpse; another its life despaired of, but which, however, eventually recovered; and the other, that appeared to be, in some measure, under the influence of the Cow-Pox, although, too late to prevent the Small-Pox (mark the difference,) running about the house with a few scattered pimples, as if nothing had been the matter with it;—a warning to parents not to defer Vaccination till the Small-Pox is at the door, which was the case in this instance. R. D. M.

\* I have mentioned one, because it accords with the general opinion of practitioners; but, in my practice, I have always recommended re-vaccination, when less than two have been uninjured. I have been in the habit of making three or four punctures: if only one puncture should take effect, although the pustule should be perfectly regular in every respect, I should not feel satisfied of my patient's safety; in all such cases I have recommended re-vaccination at some distant period. I must however state, that a great many of my patients have not attended to this rule, and no instance of failure, on this account, has ever come to my knowledge.

† Among the poor it is essentially necessary that more than one puncture should be made in each arm. They cannot pay the same attention to their children as those in affluent circumstances, that have servants to watch them, and the part vaccinated is so liable to be rubbed from the clothing, or by taking hold of the arm in play, &c. that if, out of four punctures, two remain to the twelfth day uninjured, I have thought it fortunate