

V. *Part of a Letter from Dr. Nettleton, Physician at Halifax, to Dr. Jurin, R. S. Secr concerning the Inoculation of the Small Pox, and the Mortality of that Distemper in the natural Way.*

THERE are two Propositions advanced by the Favourers of the Practice of Inoculation, concerning which the Publick seems to require more full Satisfaction. *That the Distemper rais'd by Inoculation is really the Small Pox; and, That it is much more mild and favourable, and far less mortal, than the natural sort.*

The former of these is not so much disputed now, as it was at first, when this Method was introduced, nor can it be made a doubt of by any one, who has seen those that have been inoculated, and has also been much conversant in the natural Small Pox. There is usually no manner of difference to be observed betwixt the one sort and the other, when the Number of Pustules is nearly the same; but in both there are almost infinite Degrees of the Distemper, according to the difference of that Number. All the Variation that can be perceived of the Ingrafted Small Pox from the Natural, is, that in the former the Pustules are commonly fewer in Number, and all the rest of the Symptoms are in the same Proportion more favourable. They exactly resemble what we call the Distinct Sort: the Symptoms before the Eruption are the very same, and when the Pustules begin to rise, their Appearance is the same, as well as their Periods of Maturation and Declension; they are at first of the same florid, rosy Colour, and when fully ripe, of as

fair a yellow. They commonly rise as round and as large as the other, and when they are very numerous, the Inflammation and swelling of the Face comes on at the usual Time, and is followed by the swelling of the Hands and Feet, and only once I observed a Salivation, tho' the Pustules were distinct. In the Natural Small Pox, when the Pustules are very few, we sometimes observe, they do not rise to so great a Bulk, neither do they ripen so fully, nor continue so long as usual; and it is the same in the way of Inoculation. In short, as this Distemper is raised by an Ingraftment from the Small Pox, as it has the very same Appearance, and as it is capable of producing the same by Infection, there seems to be no room to doubt of its being the true and genuine Small Pox. And if that be allowed, it will follow from thence, as a Corollary, that *Those, who have been inoculated, are in no more Danger of receiving the Distemper again, than Those who have had it in the ordinary Way.* And this is also thus far confirmed by Experience. We are very ready to own, that the Operation may sometimes fail: those Gentlemen, who first communicated to the Royal Society some Account of this Practice from *Turkey*, did both of them intimate so much; tho' I believe that will but rarely happen. In one * Instance here, I observed no Eruption at all, neither did the Wounds inflame and swell any more than would have follow'd from a common Incision, which made me conclude, that what was apply'd had not taken Effect, and indeed the Reason of it was very well known to me. In three others, tho' the Wounds did inflame, and swell, and discharge considerably, yet the Eruptions were so imperfect, as to leave me a little

* *William Clark's Son.* See *Philosoph. Transact.* No. 370. p. 45.

in doubt: but two of these have since been sufficiently try'd, by being constantly with those who had the Small Pox, without receiving any Infection; which makes me inclined to believe they will always be secure from any danger of it. As to all the rest, neither I nor any body else, who saw them, did in the least question, but that they had the true Small Pox.

As to the latter Proposition, *That the Ingrafted Small Pox is far less dangerous than the Natural*: the Truth of this, I suppose, can only be found by making a Comparison, so far as our Experience will extend. In order to this, I have taken an Account in this Town, and some Part of the Country, and have procured the same from several other Towns hereabouts, where the Small Pox has been Epidemical this last Year, with as much Exactness as was possible, how many have had the Small Pox, and how many out of that Number have died. Some of these I did send you the last Summer, but I will beg leave to repeat them amongst the rest, that they may be all under one view.

	Have had the Small Pox.	Died.
In <i>Halifax</i> — — — — —	276	43
In a Part of the Parish of <i>Halifax</i> , stretch- ing towards <i>Bradford</i> — — — — — } In another Part of the same Parish —	297	59
In <i>Bradford</i> — — — — —	268	28
In <i>Leeds</i> — — — — —	129	36
In <i>Wakefield</i> — — — — —	792	189
In <i>Rochdale</i> — — — — —	418	57
In <i>Astton under Line</i> , a small Market- Town in <i>Lancashire</i> , including two neighbouring Villages — — — — — } In <i>Macclesfield</i> — — — — —	177	38
In <i>Stockport</i> — — — — —	279	56
In <i>Hatherfield</i> — — — — —	302	37
	287	73
	180	20
Total	3405	636

I am very sensible you will require a great number of Observations, before you can draw any certain Conclusions. I would only crave leave to remark, that it appears from these Accounts, that this last Year, in this Part of the Kingdom, almost nineteen out of every hundred, or *near one fifth of those, who have had the natural Small Pox, have died*; whereas out of *sixty one which have been inoculated hereabouts, not one has died*; for as to the Case of Mr. *John Symson's* Daughter, which would have made the sixty second, I leave it out of my Account, and I will refer it to any impartial Judgment, whether I may not justly do so *. The Facts are open to every one's Enquiry, and whoever will give himself the Trouble, may be satisfied as to the Truth of them.

Halifax, Dec. 16.

1722.

* See Philosoph. Transact. No. 370. p. 41, 42.