

great number had grown up to an adult age without having been vaccinated, there were a few who suffered more than usual through the operation. Complaints were invited, only one or two were received, and only in one instance did anything untoward occur. In this particular case the patient had apparently received some outside poison into the wound. That the lymph was not at fault was shown by the fact that though a great many others were vaccinated with the same nothing unusual was noticed. The opponents of vaccination make much of such cases, but it is well to remember that nothing in this world, no matter how generally useful and beneficial it may be, is absolutely without danger. The calm temperate observations of Sir T. D. Acland on this subject are worthy of the most careful consideration. Speaking to an audience of working-men at the Mansion House he said,—

I should like to say that we know, even if all goes well, that a vaccinated child suffers something, and is an increased care and anxiety to an often overworked mother. No one can sympathise more than I do with the trouble and distress which may thus come to mother and child through the second week of even a normal vaccination. Sometimes, when all does not go well—when there is inflammation of the arm, or ulceration of the pocks—the burden thus imposed on the mother is heavier, and the suffering to the child is greater, and in some few instances the injury may be severe. It cannot be denied that in the case of a working-man such trouble in the house may be a serious one, and it must be looked upon as a sacrifice which he is asked to make for the good of the State as well as for the good of his child.

Calculating from the cases which were brought under the notice of the Royal Commission on Vaccination during the years 1889–96, and from the cases inquired into during 1888–91 by the Local Government Board, it would appear that there was death or serious injury in one case in about fourteen thousand primary vaccinations.\* You may say that even this amount of harm ought not to be, and the fact that it does occur is a powerful argument against vaccination. Before accepting this conclusion you must take into consideration that more than half (57·6 per cent.) of these cases resulted from preventible causes—that is, from one or other of the various forms of inflammation. Further, when you consider the ease with which the vaccine pocks may be injured, rubbed, or fouled, and when you consider the terrible conditions under which, unfortunately, thousands of our fellow working-men have to live, it is hardly to be wondered at that an open wound like vaccination does sometimes go wrong.

All things occasionally go wrong in this imperfect world, and wherever you turn you will find a certain amount of penalty has to be paid for everything we have, however valuable and beneficent it may be. Gas-explosions, railway accidents, shipwrecks, fires, all contribute something to the sorrow and suffering of the world, yet no one in his senses would give up gas, or railways, or ships, or houses because some injury is caused and some lives are lost by their use. Surely it is a question of degree. It is no use in the presence of an enemy discarding a weapon because you fear it may not be absolutely free from danger to yourself, unless or until you have something better to substitute for it. In the case of small-pox there is no substitute, and if you discard vaccination you are left defenceless and without any protection but flight in the presence of a relentless foe. It cannot even be pretended that the practice of vaccination hinders the adoption of every other useful means of combating small-pox.

When first I began to consider these questions seriously, I cast about for something with which the risk caused by vaccination (infinitesimally small though it really is) might fairly be compared, and I came to the conclusion that the use of anæsthetics (chloroform and ether) was, on the whole, the greatest blessing which my profession had ever been able to confer on suffering mankind. Now, as you are all aware, a certain number of deaths occur every year through the use of anæsthetics; this is quite unavoidable. The percentage number of deaths from chloroform is nearly seven times as great as that from the complications or accidents of vaccination. The deaths from ether are considerably fewer than from chloroform, but, even so, the total directly traceable to anæsthetics is considerably greater than that resulting from vaccination.

It is interesting to compare the numbers of vaccinal injuries with the fatality from small-pox (even in a mild epidemic) where the practice of vaccination has been allowed to lapse. In Leicester, during the outbreak of 1891–92, 100 unvaccinated children were attacked, of whom twelve died. Thus in this community (with an unvaccinated child population), with all the boasted safeguards of isolation and sanitation, as many children died from small-pox as, according to the calculation given above, might be estimated to die or to suffer from serious injury amongst a like number of children (100) in 1,680 years, or in about 169,908 vaccinations. During this same epidemic only two vaccinated children under ten years of age were attacked by small-pox, neither of whom died.

In a severe epidemic, such as that at Gloucester (1895–96), no fewer than 279 unvaccinated children under ten years of age died out of 680 attacked (41 per cent.). Such fatality would not occur in less than three *million* primary vaccinations, and a very little calculation will show that the risk of a fatal issue amongst those attacked was just 6,000 times as great as from vaccination. Comment is unnecessary, but the facts are deserving of serious study. They seem to me to show quite clearly that, although there is a certain amount of risk in vaccination, the risk is so small that it is one which should be readily faced if it can be shown that vaccination is for the good of the individual and for the benefit of the State. A great deal has been written and said about the serious nature of the risks, but they are in fact very small, and are such as the members of my own profession readily incur for themselves, their wives, and their children, for though they know them better than any one else can know them, they judge them to be, as they are, insignificant as compared with risks of small-pox.

It is the duty of every one of us, as far as in us lies, to prevent ourselves from becoming the centres of infection. As you are the judges in this case, and have to decide for yourselves whether vaccination is capable of affording protection against small-pox, it is only right that you should consider the credibility of the witnesses who bring forward their evidence for or against the practice. Every one will, I think, allow that if they want a good pair of boots they should go to a bootmaker, and if they want a good loaf