

Small Pox Vaccination

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There has been a lot of hype in the media lately about Smallpox vaccination and as usual, most of this is myth and/or dis-information. It is timely that we explore the topic more closely.

Smallpox vaccination has a long history and it is interesting to point out that the in-effectiveness of this procedure had been known for a long time.

One good message that is being emphasised in the news bulletins is that smallpox vaccination is dangerous. People do die from the vaccine. The figures quoted are possibly on the conservative side but that is probably a political ploy.

Most people think that smallpox vaccination started with Edward Jenner in 1796. Not so! Smallpox was recognised in approximately the 6th century but did not come to England till the 13th century. It is postulated that it was brought there by the returning Crusaders. The disease was quite prevalent and there was no treatment. It was well known that the same disease did not occur twice in the same person, though note well, this only occurs in people with the full-blown disease. This does not occur with artificial infection. That is the catch. To get full immunity, you have to catch and overcome the full blown infection. Having a mild, modified infection does not give full, permanent immunity.

There was the thought among people that smallpox was one of those inevitable things (like death and taxes) so, to get it over and done with, some people deliberately inoculated themselves and their children directly from infected people. This was done so that the time could be chosen, when they were at their best health to get the disease and hopefully to survive. This is in line with the ideas of Paracelsus, the so-called medical genius of the middle ages, who taught isopathy, which is the cure of disease by the use of the products of those diseases (pus or exudate). The historian Le Duc describes similar methods in Constantinople in 1672. The method that he described consisted of cutting a cross into the flesh and then applying smallpox exudate to the cut.

Many regions practised similar methods of inoculation--it is no wonder that the incidence of smallpox was high. In 1721 Lady Mary Wortley Montague, the wife of the English ambassador to the Ottoman Empire, was in Constantinople and there she saw the Turks inoculating each other. Again the idea behind this was that if you get the disease in a mild, less debilitating form, you would not get it again.

There is no explanation of how you could get a mild case by inoculating. You could dilute the exudate, or get exudate from a mild case, but either way you could not guarantee that a mild case would be produced; severe cases could still be produced in the recipients despite the fact that the donor had an apparently mild case. None the less, Lady Mary introduced the idea to England. Her motives were honourable: she wanted to reduce the level of smallpox in England. However, instead of improving the situation, it became worse; smallpox spread to places where it had not been seen previously.

In 1753 the College of Physicians found that there was much apprehension about direct inoculation and issued a pronouncement that these people were ignorant-- that inoculation is "highly salutary to the human race." By 1796 they, too, began to realise that it was not at all "salutary to the human race" and the opposition to it was well-founded. At this stage Edward Jenner came on the scene.

How the actual idea came to him is not known for sure; I have come across two different versions. One reference says that one of his patients, a dairy-maid, on being diagnosed as having smallpox said to Jenner that she could not possibly have smallpox (*Variola major*) because she had had cowpox (*Variola vaccinae*). Another reference says that he got the idea from a farmer by the name of Benjamin Jesty. There was an old wives tale which claimed that if you caught cowpox then you could not catch smallpox. However, Jenner himself saw that this was just not true, that is, people who had caught cowpox still could get smallpox.

One important factor that has been observed is that the lifestyle of country people was relatively healthier than that of city dwellers. Country people had less smallpox not because they caught cowpox, but because they lived in healthier circumstances than city people, who were crammed into unhealthy urban situations with overcrowding, poor food, contaminated water and open cess-pools.

Jenner used this old wives tale to achieve two things. Firstly, by using cowpox he could get away from the objections to direct inoculation. Secondly, there was a financial factor.

Jenner initially did not have a medical degree, he was a barber and chiropodist by profession. He had some medical training and bought his degree from a Scottish University for 15 pounds. It was only after several applications that he got an honorary degree of Doctor of Medicine from Oxford. The College of Physicians refused to admit him. He was elected FRS (Fellow of the Royal Society) in 1789 on the strength of a paper, which was on a non-medical subject, The Natural history of the Cuckoo. The original was so inaccurate that it had to be returned for revision.

Jenner's ideas on vaccination caught the popular imagination of the time, mainly because there was no treatment for smallpox. The government gave him a grant of 10,000 pounds in 1802, and another 20,000 pounds in 1807, to further his researches. That was a lot of money in those days! As you can see, the money factor was as important then as it is now. Jenner's vaccine came from the greasy heels of horses. He said that this must be used instead of the ordinary cowpox. He used horse grease cowpox because he saw men who milked cows soon after treating the heels of horses and they did not seem to get smallpox. He announced that this would give protection for life. This was a big mistake because soon it was found that it did not give any protection at all. When questioned why some did not work, he answered that there are two types of horse grease, the genuine and the spurious. He did not attempt to explain how to differentiate them, he only said that you distinguish them by the results, which is a smart way of saying that if they came down with smallpox they obviously were vaccinated with the wrong type! Revaccination was introduced because vaccinated people did catch smallpox. They argued that it must have worn off so decided to give another dose and another and another. Note, as explained above, this procedure only gave a localised illness, therefore not full immunity.

A very important question to ask at this point is What is cowpox? Nobody really knows for sure. What is known about it is that it occurred only in cows, never on a bull and only on the udders and teats. It was only found on a milking cow and only on those in contact with humans. The evidence is that in all probability the disease is a human disease created by inadvertent inoculation from infected humans on to the cows udders. But what is this disease? No one really knows for sure. It could be smallpox itself but there is some evidence that it could have been syphilis.

Compulsory vaccination

The vaccine was introduced in England in 1798. It was made compulsory in 1853 and in 1867 the laws were made even more rigid.

Over 44,000 lives were lost in the 1870-72 epidemic. Hundreds of thousands of people knew from their own experience, from family and friends that vaccination had failed to work. In fact, they saw that the vaccinated ones were those who were more likely to catch the disease.

Despite the penalties of fines and imprisonment for not being vaccinated, more and more people risked the penalties and did not get vaccinated. Synchronous with this decline in vaccination rates was the decline in smallpox. Figures from the London Smallpox Hospital showed that the majority of the patients were in fact vaccinated.

In 1898 a conscience clause was added to the legislation; this allowed people to refuse vaccination on a conscientious objection basis. Figures showed that as the percentage of unvaccinated people rose, the incidence of smallpox fell. In 1879 the percentage of vaccinated was 86% and had dropped to 61% in 1879. There was no increase in smallpox deaths. After 1902 the percentage of vaccinees dropped even further to below 40%. There was no increase in smallpox. After 1905 there was virtually no smallpox deaths.

It is well known that smallpox vaccine is dangerous. People die from the vaccine. As the incidence of smallpox fell (and this was not due to vaccination) the incidence of death from smallpox became very close to death from vaccination. In 1889 there were 23 per 100,000 deaths from smallpox and 58 per 100,000 deaths from vaccination. 1890, smallpox 16, vaccine 43, 1891 smallpox 49, vaccine 43. After 1905, a person was more likely to die from vaccination than from the disease itself.

Smallpox vaccination was suspended in the early 1980s because the disease was officially eradicated, but one of the main reasons for the suspension was that more people were dying from the vaccination than from the disease. Official figures from the Registrar-General of England record 109 children under 5 dying of smallpox in England and Wales in the years 1910 to 1933. In the same period 270 died from vaccination. Between 1934 and 1961 there was not one recorded death from smallpox but there were 115 deaths from vaccination. A similar situation occurred in the USA: between 1948 and 1969 there were no deaths from smallpox but there were 300 deaths from vaccination. At the annual meeting of the American Academy of Pediatrics in 1971 it was stated that on average 6 to 9 individuals die per annum from smallpox vaccination. Military forces continued to vaccinate their troops and this caused small local outbreaks among civilian contacts such as family and friends.

The ineffectiveness of smallpox vaccine has been the subject of many journal articles since early this century. In the British Medical Journal, 14 January 1928, Dr R.P. Garrow discussed many facts about smallpox vaccination. The death rate was higher in the vaccinated than in the unvaccinated; this difference was nearly five times as great. The number of cases was related to the number of vaccinees, i.e., as the number of people vaccinated increased, so did the number of cases. Conversely, as the number of vaccinees dropped, so did the number of cases. In some of the best vaccinated towns, the disease was rampant.

In Leicester vaccination was not practised to a great extent, the disease was almost unknown. The City of Leicester adopted a policy of quarantine and isolation; newly diagnosed cases were isolated and therefore the disease was not spread. They adopted this policy in preference to vaccination and their figures, compared against those of nearby towns that did vaccinate, showed quarantine and isolation to be a much better method of control.

Countries like Germany, which was heavily vaccinated, had a very high rate of smallpox. For example, in 1919 Germany had 707 deaths while in England there were only 28; in 1920 Germany had 354 while in England there were only 30.

In 1918 the US government initiated a smallpox vaccination campaign in the Philippines. Approximately three million people were vaccinated and then an epidemic erupted. Over 47,000 people caught smallpox; over 16,000 died. The next year they doubled their efforts and vaccinated 7 million people. Again an epidemic came and this time over 65,000 people caught smallpox; over 44,000 died. The unfortunate part was that the illness struck the more- or better-vaccinated areas. Disease struck the vaccinated people more than the unvaccinated. There is ample evidence that these epidemics were largely a direct result of the vaccination programmes. So you can see that this is not an isolated finding. Smallpox did affect the vaccinated population more than the unvaccinated.

Whenever the question of immunisation is discussed, the triumph of the eradication of smallpox is always mentioned. This is, in the eyes of the general public, the great achievement of modern medicine. Or is it?

There is really no evidence that the World Health Organisation (WHO) vaccination programme did what it is claimed to have done. In 1967, the year the WHO started the smallpox eradication programme, there were 131,000 cases reported from 42 countries. This figure is greatly underestimated; some have claimed that this represented only 5% of the total number of cases. The last official case was in Somalia in 1977 and the disease was officially pronounced eradicated in 1980. You did notice that I said officially. Smallpox is still around and I will go into that later. Now the big question is Did the vaccination programme eradicate smallpox or, as in all the other diseases, was smallpox already on the way out? At the same time, improvements in hygiene, sanitation and living standards were introduced.

Dr Thomas McKeown, past Chairman of the World Health Organisation Advisory Group on Research Strategy, concluded

"...All the countries that advanced rapidly achieved a substantial improvement in nutrition, which led to increased resistance. Indeed in some countries this was the only important direct influence. It is perhaps surprising that immunisations appears to have contributed relatively little to the advances...the reduction in mortality occurred during a period when vaccine coverage was still low. To anyone who has travelled extensively in the rural areas of the Third World, the common causes of ill health may seem self-evident.

Many children are visibly malnourished, sanitary conditions are primitive, drinking water is unclean, the food...is contaminated, and the number of people competing for the means of life is clearly excessive." (<http://www.whale.to/v/obosawin.html>)

Is smallpox really eradicated?

Before I answer this question, I think it important to explore the conditions needed to eradicate any viral disease. In 1977 Frank Fenner, a world-renowned virologist, wrote a paper in Progress of Medical Virology about the eradication of smallpox. He said that eradication of any infectious disease can be ruled out if any one of the following criteria is met: (1) if there is an animal reservoir; (2) if the infective agent persists in the human for long periods; (3) if the infective agent has multiple sero-types; (4) if a necessary degree of social cooperation cannot be obtained.

It was originally thought that there was no animal reservoir for smallpox, therefore the disease could be eradicated if all the people were made immune. This is now known to be not true and, as stated above, no disease can be eradicated if there is an animal reservoir. There are many similar pox viruses that cause similar diseases which are difficult to differentiate, even serologically.

There are the so-called monkeypox, camelpox and whitepox viruses, which each have large animal reservoirs. Since the 1970s a new disease, monkeypox, is being reported. Monkeypox is clinically indistinguishable from smallpox and is caused by a virus serologically difficult to differentiate from smallpox. As of May 1983, 101 cases had been reported. More recently an outbreak of over 90 cases has been reported in central Zaire. The Australian Doctor 23 May 97 reports that between February and August 1996 there were 71 cases, six of them fatal. Therefore smallpox cannot be eradicated and it still occurs.

Vaccination is not the answer. The only way to prevent disease is by improving hygiene, supplying clean water, effectively removing sewage and rubbish, supplying adequate housing and, most importantly, providing proper nutrition.

Overall, when the data are analysed, there is little evidence to support the claim that the vaccination programme eradicated smallpox. The programme reached only a relatively small percentage of the population, an estimated 10%, and at the same time social changes were occurring which included better housing, clean water, better sanitation and better nutrition. Does all this sound familiar?

Myths about Smallpox

This is based on a report by Dr Sherri Tenpenny, who attended the Centre for Disease Control (CDC) meeting of the Advisory Committee for Immunisation Practices in June 2002.

1/ Smallpox is highly contagious.....WRONG

"Smallpox has a slow transmission and is not highly contagious" Joel Kuritsky MD, Director of National Immunisation Programme and Early Smallpox Response and Planning at the CDC.

It is not transmitted by clothes or bed contamination; it is not spread by food or water.

2/ Smallpox is easily spread by casual contact with an infected person.....WRONG

"Transmission of smallpox occurs only after intense personal contact, defined by the CDC as constant exposure, occurring within 6-7 feet, for a minimum of 6-7 days." Dr Joel Kuritsky MD, Director of National Immunisation Programme and Early Smallpox Response and Planning at the CDC.

Smallpox is transmitted by droplet contamination. Note that coughing and sneezing is not generally a part of smallpox infection. The person only becomes contagious once the rash develops. By this time they are sick at home in bed, not out and about spreading the disease.

3/ The death rate from Smallpox is 30%.....WRONG

This is the general hype...smallpox is a deadly infection...the figure thrown about is 30%.

The actual death rates are much lower, some quote a figure of 10-15 %, (Dr Tom Mack USC, CDC Meeting June 20, 2002.) but even this figure may be inflated due to the poor nutritional status of many of the 3rd world victims.

In 1900, 21,064 cases of smallpox were reported and 894 patients died. This is a 4.2% death rate. (MMWR 1999;48:243-48)

When asked during the CDC meeting: What is the cause of death in smallpox?..... no one could answer the question for sure. The cause of death was a mystery, even in these modern days.

Smallpox is a skin disease and seldom involves internal organs. Severe cases, such as the haemorrhagic and the confluent malignant types died of complications of skin sloughing (? dehydration from loss of skin covering such as in burns.) Another suggestion was a form of "generalised toxæmia". Also note that these death rates are based on early 20th century technology. With modern technology things may be different.

Treatments such as re-hydration and IV Vitamin C would possibly reduce the incidence of death. (See Vitamin C, Nature's Miraculous Healing Missile Drs Glen Dettman, Archie Kalokerinos and Ian Dettman. Publ. Frederick Todd, Melbourne Australia 1993)

In summary, Smallpox vaccination is dangerous and ineffective. It should not be used. People should vote with their feet and refuse it if ever the situation arose where it is offered.