

Transcription - Smallpox, a history of vaccination

For centuries, a deadly disease called smallpox spread among people, causing boils filled with yellow pus to appear all over their bodies. Some people also went blind and many died. Those who survived the disease were usually left with deep scars.

In England in the 18th century there was a huge outbreak of this horrible disease. But a cattle breeder named Benjamin Jesty observed that a mild disease affecting his cows, called cowpox looked very similar to the deadly and contagious smallpox. He noticed that cowpox could also affect humans, but in a less severe way than smallpox. The interesting thing was that he himself and the milkmaids who had previously been infected with cowpox never got the horrible smallpox. Somehow the cowpox infection protected them. This observation inspired Jesty to try and protect his family in the same way: he infected them all with cowpox and it worked. None of them ever developed smallpox.

A few years later, a doctor named Edward Jenner, built on Jesty's discovery. He wanted to prove the theory that getting cowpox could protect a person from smallpox. So, he took a bit of pus from a cowpox blister on an infected milkmaid and put it into a cut in the arm of a young boy. When Jenner exposed the boy a few days later to the smallpox virus, he did not develop the disease. Just like Jesty and the milkmaids, his body had learned how to fight the disease. We say he became immune to the disease. This was a crucial step in the development of vaccination. In fact, the word vaccination, thought up by Jenner, comes from the Latin word for cow, *vacca*.

Following Jenner's experiment, smallpox vaccines began to be produced in large quantities. Millions of people got vaccinated in every corner of the world until in 1980, the World Health Organization announced that smallpox had been eradicated. Today, we no longer need to use the smallpox vaccine, as the virus is no longer circulating. This story serves as an example of how vaccines can help in the fight against infectious diseases. Thanks to Jenner's discovery, we got rid of smallpox and are now continuing our work to eradicate other infectious diseases, such as polio.