



ERADICATION OF DISEASES

THE SMALLPOX DISEASE (BLATTERN)

«High fever, delirium, vomiting, spleen swelling [...] on the scalp and face, then trunk, arms and legs, mucous membranes: red nodules, which turn into blisters with umbilications / pock-pits and pustules. At this stage also nervous disorders and complications of internal organs. After 12 - 14 days fever drops, regression, [...] crusts, after 3-4 weeks red scars... contagiousity persists for a longer period of time.» Hautatlas Eduard Jacobi, 1918

Smallpox was a severe, highly contagious infectious disease caused by the variola virus. Infection occurred via droplet exposure, by direct contact, or indirectly with contaminated objects.

After an incubation period of about two weeks, the clinical presentation described above occurred, which often healing with typical scarring. In up to 20% of those patients afflicted, the normally acquired smallpox was fatal!

EVERYBODY WAS ENDANGERED

Similar to today's childhood diseases, smallpox could infect anyone, regardless of environment or social status: man, woman, rich, poor, peasant or king. In 1967, smallpox still posed a threat to 60% of the world's population.

RESCUE FOR ALL

Smallpox was the first human disease completely eradicated by vaccination. The prerequisite for this was that the smallpox virus only affects humans and that there were no other hosts or reservoirs.

With Edward Jenner's (1749 - 1823) technique of vaccination (inoculation of cowpox virus), a safe prevention could be carried out for the first time.

Jenner observed that peasant maids who had been infected with cowpox no longer contracted human pox. This observation led him to hypothesize that exposure to cowpox would provide immunity to an acquired disease of cowpox as well as a protection against smallpox.

After numerous human trials, Jenner published his results in 1798 under the title «An inquiry into the causes and effects of the variolæ vaccinæ, a disease discovered in some of the western counties of England, particularly Gloucestershire, and known by the name of the cowpox».

SMALLPOX IS DEAD

On 8 May 1980, during its 33rd plenary session in Geneva, WHO solemnly proclaimed smallpox to be globally eradicated. The last natural smallpox disease was reported from Somalia in 1977. In August 1978, a laboratory accident in Birmingham (UK) resulted in two final smallpox cases, one of which was fatal.

The eradication of smallpox was achieved thanks to the WHO's «Smallpox Eradication Programme - SEP», initiated in 1958 and intensified from 1967 onwards. Systematic monitoring, various preventive measures, vaccination campaigns, mass vaccinations and international cooperation contributed to the successful fight against smallpox.

THE MEASLES LIVE ON

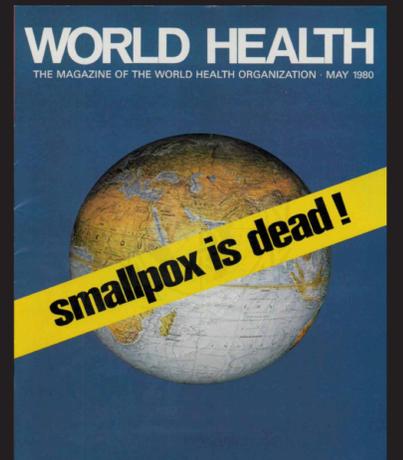
The measles virus could also be eradicated, as it also infects only human beings. Although measles is not as dangerous and therefore not as feared as smallpox, serious complications can occur; for example, in 1 of 1000 cases, encephalitis (brain inflammation) occurs with a fatal outcome.

In contrast to smallpox, the WHO has so far been unable to achieve the desired goal of the global eradication of measles. In its press release of 9 May 2019, the WHO Regional Office of Europe published an alert: Over the last 14 months, more than 100'000 people in Europe have contracted measles and more than 90 people died.

Measles has also increased in Switzerland. From early January to early May 2019, 166 cases of measles were recorded (almost eight times more than in the same period last year).

EXHIBITION SHOWCASE

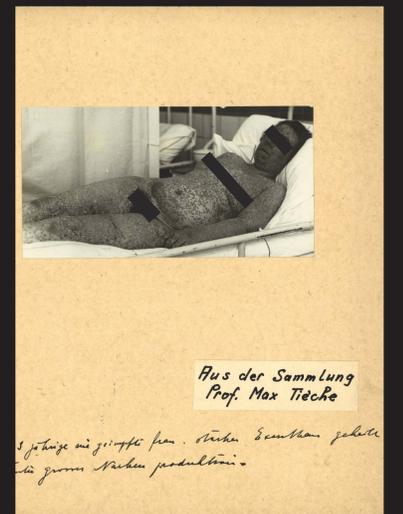
Wax moulages from the MUSEUM OF WAX MOULAGES OF THE UNIVERSITY AND THE UNIVERSITY HOSPITAL ZURICH illustrate the diseases smallpox, cowpox and measles, supplemented with various historical vaccination instruments as well as a vaccination certificate and a vaccination shield from the MEDICAL COLLECTION OF THE UNIVERSITY ZURICH, INSTITUTE OF EVOLUTIONARY MEDICINE.



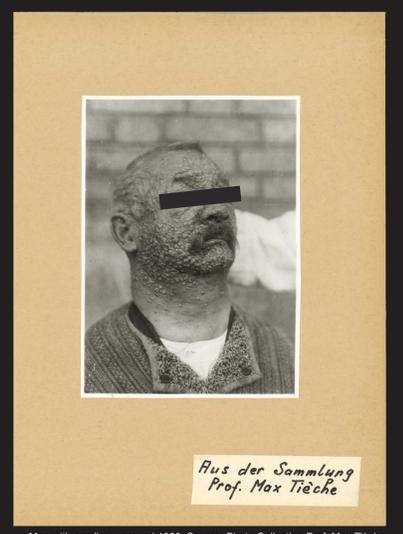
Cover page «WORLD HEALTH. THE MAGAZINE OF THE WHO», May 1980. Source: WHO



Infant with smallpox, around 1920. Source: Photo Collection Prof. Max Tietche



39 year old never vaccinated woman with smallpox, around 1920. Source: Photo Collection Prof. Max Tietche



Man with smallpox, around 1920. Source: Photo Collection Prof. Max Tietche