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BIOLOGICAL AGENTS

Variola Virus – Destruction Imminent

by
Jan Thomas

MOST MEDICAL PERSONNEL will not have seen smallpox, the disease resulting from infection by the variola virus. Hopefully, they never will. The last case of naturally acquired smallpox occurred in 1977, in Somalia, and global eradication was declared in 1980. From 1981 to 1986, the World Health Organisation (WHO) undertook a program to implement post-eradication policies.

One of the actions taken was to implement measures to assure the biosafety and security of the remaining variola virus stocks. This entailed consolidating all known samples in two WHO collaborating centres, one in the Russian Federation and the other in the United States of America. The WHO Committee on Orthopoxvirus Infections then recommended that the remaining stocks of live variola virus be destroyed in the future.

An Ad Hoc Committee was appointed to review this recommendation and assess progress and activities of the post-eradication program. There has been continuous debate in the scientific community about the ethical, scientific and social issues associated with destruction of the remaining known virus stocks in Novosibirsk and Atlanta.

In 1996 the World Health General Assembly adopted a resolution to destroy, in June 1999, the remaining stocks of variola virus, including all whitepox viruses, viral genomic DNA, clinical specimens and other material containing infectious variola virus. When the question of destruction was considered in 1999, a decision was made not to destroy the virus so that further international research into antiviral agents and improved vaccines could be conducted. This would also allow high priority investigations of the genetic structure and pathogenesis of smallpox to take place. All the work is carried out under the very careful control of the WHO.

In 2002, the question of destruction will be revisited. There is still deep concern among many members of the scientific community about the prudence of destroying a virus which causes a disease for which we have no cure, particularly as the global population is now more susceptible to smallpox.

1. Thomas J Variola Virus – Destruction imminent. Aust Mil Med 2001; 10(2):66.
2. Miss Jan Thomas as a Staff Officer in the Directorate Health in the Defence Health Service Branch at the time of publication