Second Case of Novel Orthopoxvirus Infection in a Fairbanks-area Resident

Discussion

This is only the second known case of Alaskapox virus infection. Both occurred in residents of the Fairbanks area who did not have recent history of out-of-state travel. The respective symptom onset dates were more than 5 years apart and we did not identify any epidemiologic link between the cases.

Based on what is known about the epidemiology and ecology of other orthopoxviruses, and based on evidence from these two cases, we hypothesize that Alaskapox virus is most likely enzootic in one or more species of mammals in Interior Alaska and that humans are only occasionally infected. Both cases occurred during mid- to late summer in residents of forested areas near Fairbanks. While the similar time of year may be purely coincidental, it may also reflect the fact that small mammal population sizes are larger at that time.

The available evidence suggests that the public health impact of Alaskapox virus is limited. Importantly, there is no evidence of human-to-human transmission. The animal-to-human transmission route is unclear, but accidental inoculation of pre-existing breaks in the skin with infectious fomites is one possibility. It is reassuring that both known infections caused self-limiting illness. However, much remains unknown about the epidemiology and pathology of Alaskapox virus. Increased awareness among clinicians may lead to the identification of additional cases and thereby inform a fuller understanding of the incidence, risk factors, and spectrum of illness. The Alaska Section of Epidemiology is working with the University of Alaska Museum and CDC to look for a possible animal reservoir for the virus in the Fairbanks area.

Recommendations

1. Follow routine precautions to prevent disease transmission between humans and wildlife. These include: a) not handling wild animals, b) preventing wild animals from entering buildings, c) avoiding areas with lots of animal droppings, and d) washing hands regularly.

2. Providers should first rule out other common conditions (e.g., varicella zoster and herpes simplex viruses) before requesting poxvirus testing. If no alternative diagnosis is identified, providers should contact the Section of Epidemiology at 907-269-8000 for assistance in accessing poxvirus testing.

3. Persons with suspected orthopoxvirus infections should be advised to keep the lesions dry and covered, to not touch them, and to not share with other people towels and other items that might come into contact with the lesion.

References


4. Roth C. Smallpox and other poxvirus diseases. In: Heymann DL, ed. Teasdale DM, VDH, MD, Chief Medical Officer

5. Anchorage, Alaska 99503 http://dhss.alaska.gov/dhp/Epid

6. 24 Hour Emergency (800) 478-0084

7. (Contributed by: Eric Q. Mooring, ScD, MPhil, SM, Alaska Section of Epidemiology; Link E. Olson, PhD, University of Alaska Museum; and Zachary Werle, DO, Tanana Valley Clinic.)