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Peril in the north: Alaska's new pox

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The Alaskapox virus (AKPV) is a new Orthopoxvirus first identified in 2015 on a woman near Fairbanks, Alaska[1]. This double-stranded DNA virus, part of the Poxviridae family, shares its genus with notable viruses like smallpox, monkeypox, and cowpox. Despite these genetic ties, AKPV is distinct and potentially represents a new species within the Orthopoxvirus genus, as suggested by its sequenced genome[2]. AKPV presents clinically with skin lesions, swollen lymph nodes, and joint or muscle pain. It predominantly affects small mammals, but transmission to humans is possible, likely through direct contact with infected animals or their domestic pets. Since its discovery, there have been seven documented human cases, with the first fatality recorded in January 2024. This case involved an elderly, immunocompromised man from the Kenai Peninsula, highlighting the potential severity of the virus in vulnerable populations. The current mortality rate of AKPV is approximately 14%, though human-to-human transmission has not been observed[1,3].

Diagnosing AKPV involves clinical evaluation and laboratory testing, with confirmation via polymerase chain reaction and

virus isolation from skin lesions or blood samples. Differentiation from similar viruses, such as cowpox, through specific laboratory tests, is crucial due to differing treatment and management strategies[4]. Individuals with suspected AKPV lesions should cover the affected areas with a bandage and avoid sharing bedding or other linens[1,3]. Given the absence of specific antiviral therapies or vaccines for AKPV, healthcare providers must emphasise supportive care and preventive measures[1].

In conclusion, identifying AKPV highlights the dynamic nature of viral evolution and the constant need for vigilance in public health. The medical community must prioritise research on AKPV and similar emerging pathogens to mitigate their potential impact. Enhanced surveillance, robust diagnostic protocols, and effective public health interventions are essential to manage and prevent future outbreaks of AKPV and other novel viruses.

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