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Editorial

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Monkeypox Infection in Children

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Human monkeypox (MPX) is a zoonotic orthopoxvirus infection similar to smallpox. The current worldwide outbreak of MPX is mainly associated with ongoing transmission within the community of men who have sex with men [1] and cases in children are rare [2]. However, MPX infections in children in outbreaks that occurred in Africa were common and their mortality rate was between 3.6% and 10.6% [3, 4].

MPX virus can be transmitted through direct contact with infected individuals (sexual or skin-to-skin), as well as indirect modes of transmission through respiratory droplets, and fomites such as towels and bedding [3, 4]. Sexual abuse should be investigated when MPX occurs in a child. This includes taking careful history and testing for syphilis, gonorrhea, chlamydia and HIV infections. Since the incubation period can vary between 5 and 21 days, finding the source of the infection requires assessment of potential contacts within that period.

Immunization with smallpox vaccine may have a protective effect against MPX virus and can ameliorate the symptoms of the infection [5, 6]. Two vaccines are available in the USA for MPX, the JYNNEOSTM (live, replication incompetent vaccinia virus) and ACAM2000® (live, replication competent vaccinia virus) [7]. Additionally, the Aventis Pasteur Smallpox Vaccine (APSV) could be used for smallpox under an investigational new drug (IND) protocol. It is recommended that children who may be at risk of exposure MPX get vaccinated.

Most individuals with MPX have a mild and self-limited illness, and supportive care is generally adequate. Antiviral agents and vaccinia intravenous immune globulin are available for treatments. The antivirals include tecovirimat, brincidofovir, and cidofovir, which were approved for treatment of smallpox in humans based on *in vitro* and animal studies [7]. Antivirals can be considered in severe disease, immunocompromised individuals, children, pregnant and breastfeeding women, those with complicated lesions, and when lesions appear in proximity to the mouth, eyes, and genitals.

Vaccinia immune globulin (VIG) is a hyperimmune globulin approved by the US Food and Drug Administration for treatment of certain complications of vaccinia vaccination. Therefore, treatment of MPX with VIG should be conducted under an IND application [8].

While most individuals infected with MPX virus have a mild, self-limiting disease course, the prognosis for MPX may depend on multiple factors such as previous vaccination status, initial health, and coexisting illnesses or comorbidities.

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Conflict of Interest

None to declare.

Data Availability

The author declares that data supporting the findings of this study are available within the article.

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