

A Brief Review on Monkeypox

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ABSTRACT

Monkeypox is a zoonotic disease caused by the Monkeypox virus (MPXV), which belongs to the Poxviridae family. It spreads through close contact with respiratory secretions by touching the contaminated objects such as clothing and beddings, or through the skin lesions of an infected person. The congenital Monkeypox occurs when the virus transmitted vertically from the mother to the fetus. The initial symptoms and signs of MPXV are usually headache, backache, fatigue, low grade fever, malaise and lethargy. During the incubation period (average incubation period is 8 days), a vesiculopustular rash begins on the face and trunk then spreads all over the body. Polymerase Chain Reaction (PCR) test is used for the diagnosis of Monkeypox. An antiviral medication called Tecovirimat was approved for the treatment of human smallpox disease, which can also be used to control and prevent MPXV. Monkeypox is a disease that is no longer confined to remote regions. Even though, it is not as devastating as Smallpox, the ability to spread through human to human transmission, combined with its severe outcomes, sometimes makes it a critical concern. Better treatment with improved vaccines and continued vigilance along with proactive global response is essential in managing this emerging threat.

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Introduction

Monkeypox is a zoonotic disease caused by the Monkeypox virus (MPXV), which belongs to the Poxviridae family [1]. The MPXV was first discovered during an outbreak among the monkeys at a laboratory in Denmark in the year 1958 [2].

Causes and Transmission

It spreads through close contact with respiratory secretions by touching the contaminated objects such as clothing and beddings, or through the skin lesions of an infected person. The congenital Monkeypox occurs when the virus transmitted vertically from the mother to the fetus.

Due to the recent outbreaks outside of traditionally affected regions like Europe and North America, that have prompted health officials to investigate possible changes in the transmission dynamics, including the potential for sexual transmission as some cases in these regions have been linked to sexual contact and social networks [3,4].

Signs and Symptoms

The initial symptoms and signs of MPXV are usually headache, backache, fatigue, low grade fever,

malaise and lethargy. During the incubation period (average incubation period is 8 days), a vesiculopustular rash begins on the face and trunk then spreads all over the body [5].

Diagnosis

Polymerase Chain Reaction (PCR) test is used for the diagnosis of Monkeypox. After a negative result in PCR test, if there is still suspect of monkeypox virus, then other tests like viral culture, immunohistochemistry and anti-orthopoxvirus IgG and IgM tests are recommended [6].

Management and Prevention

Currently, there is no specific treatment for Monkeypox. Symptomatic treatment can be given by the health care professionals. An antiviral medication called Tecovirimat was approved for the treatment of human smallpox disease, which can also be used to control and prevent MPXV [7,8].

Conclusion

The current outbreaks are not as severe as some other viral diseases, but the potential for Monkeypox is to become wider spread in regions with limited healthcare resources is a concern. To improve surveillance, access to diagnostics and the equitable

distribution of vaccines and treatments, it is necessary to have increase in international collaborations. Public awareness and education plays a crucial role in slowing down the spread of this virus. The stigma surrounding the diseases particularly regarding its association with sexual transmission, can hinder effective response effective. Monkeypox is a disease that is no longer confined to remote regions. Even though, it is not as devastating as Smallpox, the ability to spread through human to human transmission, combined with its severe out comes, sometimes makes it a critical concern. Better treatment with improved vaccines and continued vigilance along with proactive global response is essential in managing this emerging threat.

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