

EARLY WARNING OF MONKEYPOX DISEASE IN INDONESIA

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Monkeypox is smallpox caused by infection with zoonotic orthopoxvirus. Human infection was first described in Central Africa in 1970 ([Guarner et al., 2004](#); [Marennikova et al., 1972](#)). Monkeypox can cause severe clinical disease, with abnormal systemic signs and symptoms ([Huhn et al., 2005](#)).

The Singapore government report said it had found monkeypox in the country. The rare disease is under a 38-year-old Nigerian citizen who arrived in Singapore on April 28, 2019 ([Times, 2019](#)).

The main clinical picture of the monkeypox is similar to smallpox. The incubation period of infection until the onset of symptoms of monkeypox is usually 6-16 days. Symptoms include fever, headache, lymphadenopathy, back pain, muscle aches, and weakness. Skin rashes appear on the face then spread to other body parts. This rash develops from red spots such as smallpox, blisters filled with clear fluid, pus-filled pus, then hardens. It usually takes up to 3 weeks for the rash to disappear ([Breman et al., 1980](#); [Hutin et al., 2001](#)).

The monkeypox virus has the potential to pose a threat to human health ([Huhn et al., 2005](#)).

Monkeypox can be caused by ecosystem degradation, which has an impact between humans and animals infected with the monkeypox virus (MPXV), poor nutrition ([Parker et al., 2007](#)). Infections in cases of monkeypox occur due to direct contact with blood, body fluids, or skin or mucosal lesions in infected animals. Secondary transmission, or from human to human, can occur due to direct contact with mucus from an infected person's respiratory tract, infected skin lesions or objects that have recently been contaminated by fluid coming out of the patient's body or from wounds ([Fine et al., 1988](#)).

Batam City is an area that borders Singapore; this city has a huge potential of monkey disease entering Indonesia. This is because in a month, around 1.5 million tourists go out and enter from Singapore to Batam ([Kompas, 14 Mei 2019](#)). So that supervision is needed at the airport and at the port, the port health office continuously monitors everyone entering through the city of Batam. Nationally, the ministry of health seeks to educate the public about the importance of understanding trigger factors and the mechanism of transmission of monkeypox disease.

Furthermore, the Indonesian Government conveyed that it should avoid direct contact with primates, avoid contact with wild animals or consume hunted meat from wild animals, applying clean and healthy living behaviors, such as washing hands with soap ([Republika, 2019](#)). Prevention in humans can be done by vaccination. Studies show that vaccination with live vaccinia virus (VACV) protects humans against monkeypox ([Hooper et al., 2004](#)).

In conclusion, the shared concern is needed in preventing the spread of monkeypox in Indonesia. The government and the public must realize that this disease can strike in all walks of life. So that early warning of monkeypox is one positive effort in preventing the spread of this disease

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