First detection of foot-and-mouth disease O/ME-SA/Ind-2001 virus lineage, Indonesia, 2022

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Abstract

Foot and mouth disease (FMD) is a highly contagious disease affecting cloven-hoofed animals which has been well documented as one of the major animal diseases that causing serious economic loss of livestock sectors. The disease is endemic in many countries, particularly in Asia and Africa. Indonesia has declared disease-free country since 1986 and the World Organization of Animal Health (WOAH/OIE) has recognised Indonesia as FMD-free country without vaccination in 1990. However, FMD virus was detected from a number of disease outbreaks in cattle and goat in Indonesia in May 2022. This study report for the first time the detection and identification of serotype O/ME-SA/Ind-2001 lineage in Indonesia. Although the Indonesian serotype O/ME-SA/Ind-2001 viruses appeared belonging to the Ind-2001e sublineage, they formed a unique cluster with 95.3% average nucleotide sequence similarity to Ind-2001e viruses from other Asia countries. The source of virus incursion into Indonesia is still unresolved; however, illegal trade of live animals from endemic areas in Southeast Asia is the suspected route which should be further investigated.

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