

Short Communication

LANGYA: A NEW HENIPAVIRUS IN CHINA

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ABSTRACT

China once again has a new virus outbreak which may be a Global health issue. First case of LayV) in human was reported on 8 August 2022, total 35 cases were reported. This may be a global health issue as like Covid 19. This novel Langya virus is from the genus henipavirus, which currently comprises of 7 viruses, Hendra (HeV), Nipah (NiV) of this genus were proved fatal. Research findings suggested shrews may be a natural reservoir for the pathogen. Symptoms of this infection include fever, fatigue, cough, nausea and headaches. Mostly the cases were reported in patients who are in contact with pigs and sick horses. More study is needed in this case for concluding human-to-human transmission. Till today there is no any special vaccine or approved treatment for henipavirus, it also includes Langya virus.

Keywords: Langya, Henipavirus, Shrews, LayV

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INTRODUCTION

China once again has a new virus outbreak which may be a Global health issue. The first case of novel Langya Henipavirus (LayV) in human was reported on 8 August 2022 and 35 cases were reported from the country. World is worried about this virus, as in 2019 an outbreak of Covid 19 was a pandemic which was a major disturbance and today this is the new virus which may be potentially fatal to human beings. As per reports, it can cause severe illness in humans and animals. As a novel virus we don't have any approved vaccination for the prevention of the case [1]. It is one of the henipavirus species, its normal hosts were found to be rodents, cats, dogs, horses, shrews, swine, bats etc. 35 cases of these infections were observed in China In 2022. Primarily the infections are observed in patients who had contact with sick horses and pigs [2]. The genus henipavirus is currently comprises of seven viruses- Hendra (HeV), Nipah (NiV), Angavokely virus (AngV), Cedar virus (CedV), Ghanaian bat virus (GhV), henipavirus, Mojiang (MojV), Gamak (GAKV) and Daeryong (DARV) viruses. Henipaviruses consist of six structural proteins-nucleocapsid (N), phosphoprotein (P), matrix (M), fusion (F), glycoprotein (G), and polymerase (L) [3]. The infection cases were found in eastern and central Henan provinces in China. Infected Peoples have symptoms like fever, fatigue, cough, nausea and headaches. Blood cell abnormalities and impaired liver and kidney functions are also reported in some cases. Research findings suggested shrews may be a natural reservoir for the pathogen [4]. The virus seems to be transmitted from animal to human beings. The virus is detected in 2%of goats and 5% of dogs. The transmission of the virus from human to human is not clear still now. Langya virus belongs to Henipavirus, a zoonotic henipavirus category which also includes Hendra virus and Nipah Virus. LayV virus belongs to the *Henipavirus* genus in the family *Paramyxoviridae*, having single-stranded RNA genome with negative orientation [5]. 70% of newly emerging infectious diseases includes animal-to-human transmission, as per the estimation of the scientists. In about last 40 y viruses are evolving much faster than other pathogens. Bovines have a significant contribution on human health regarding their nutrition, agriculture, industrial purposes, medical research, drug and vaccine development, and livelihood etc [6]. Human-to-human transmission is yet unclear but the majority of infected persons were farmers and factory workers. 15 family members of nine patients were studied for transmission, but no close contact transmission of LayV was found. As this sample size was so small for this study, more study is needed in this case for concluding human-to-human transmission.

Till today there is no any special vaccine or approved treatment for henipavirus, it also includes Langya virus [7]. Ribavirin is effective against Hendra and Nipah virus of genus Henipavirus, so it may be an option when no other treatment is approved for viral infection [7]. Out of the infected patients, the symptoms shown with percentage are fever in 100% of patients, Fatigue in 54%, cough in 50% patients, Myalgia in 46% of patients, nausea in 38% of patients, headache in 35% patients, vomiting in 35% patients, they may also shows abnormalities like thrombocytopenia in 35% patients, leucopenia in 54% patients, impaired liver in 35% patients, and impaired kidney function in 8% patients [8]. LayV virus appears a similarity with two other viruses which are significant in human-Nipah virus and Hendra virus. Hendra virus was first reported in 1994 in Queensland, and it has caused the deaths of 14 horses as well as their trainer. In Australia 7 human cases of Hendra virus has reported which includes 4 deaths. Globally Nipah virus was more significant. Its first outbreak was first reported in Malaysia and Singapore and the infected cases were in contact with pigs. More outbreaks of Nipah virus were reported due to bats, and the case was the contamination of food with urine and saliva of an infected bat. Nipah virus may be transmitted from person to person. The infection may vary from very mild to severe and even fatal Encephalitis. Its outbreaks was reported in Bangladesh frequently [9].

Laboratory diagnosis is made by using a combination of tests, including ELISA of serum or cerebrospinal fluid (CSF); RT-PCR of serum, CSF, or throat swabs; and virus isolation from CSF or throat swabs [10]. Currently, there are no validated molecular (e. g., RT-PCR), serological or isolation assays specifically for LayV [11].

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AUTHORS CONTRIBUTIONS

All the authors have contributed equally.

CONFLICT OF INTERESTS

Declared none

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