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News: Mpox virus

- Recently, a study revealed a novel adaptation mechanism of the Mpox virus enhancing its ability to infect humans amidst recent outbreaks.

Mpox

- Mpox is a **viral zoonotic disease that occurs primarily in tropical rainforest areas of Central and West Africa** and is occasionally exported to other regions.
- Mpox virus infection has been **detected in squirrels, Gambian poached rats, dormice, and some species of monkeys.**
- Mpox is caused by Mpox virus, a member of the Orthopoxvirus genus in the family Poxviridae.
- Mpox infection was **first discovered in 1958 following two outbreaks of a pox-like disease in colonies of monkeys** kept for research — which led to the name ‘Mpox’.
- Mpox typically presents clinically with **fever, rash and swollen lymph nodes.**
- It **causes the lymph nodes to swell** (lymphadenopathy), which smallpox does not.

- Mpox virus is mostly transmitted to people from wild animals such as rodents and primates, but human-to-human transmission also occurs.
- The first human case was recorded in 1970 in the Democratic Republic of the Congo (DRC) during a period of intensified effort to eliminate smallpox.
- Mpox virus is transmitted from one person to another by contact with lesions, body fluids, respiratory droplets and contaminated materials such as bedding.
- The incubation period (time from infection to symptoms) for Mpox is usually 7-14 days but can range from 5-21 days.
- Typically, up to a tenth of people ill with Mpox may die, with most deaths occurring in younger age groups.
- The clinical presentation of Mpox resembles that of smallpox, a related orthopoxvirus infection which was declared eradicated worldwide in 1980.
- Vaccinia vaccine used during the smallpox eradication programme was also protective against Mpox.
- A new third generation vaccinia vaccine has now been approved for prevention of smallpox and Mpox. Antiviral agents are also being developed.
- The name was changed from "monkeypox" to "mpox" to avoid stigma towards monkeys and reflect the virus's direct human infectivity.