MonkeyPox

Why in news?

Health authorities in the United Kingdom have confirmed a case of monkeypox, a rare viral infection similar to smallpox, in an individual who recently travelled to that country from Nigeria.

What is Monkeypox?

- Monkeypox is a **zoonosis**, that is, a disease that is transmitted from infected animals to humans.
- Monkeypox virus infection has been detected in squirrels, Gambian poached rats, dormice, and some species of monkeys.
- **Cause**- Monkeypox virus.
- While the natural reservoir of monkeypox remains unknown, African rodents and monkeys are suspected of transmission and infection.
- **Occurrence-** According to the WHO, cases occur close to tropical rainforests inhabited by animals that carry the virus.
- According to the WHO, two distinct clades are identified
    - the West African clade
    - the Congo Basin clade (the Central African clade
- **Transmission-** Transmission can occur through contact with bodily fluids, lesions on the skin or on internal mucosal surfaces, such as in the mouth or throat, respiratory droplets and contaminated objects.
- Human-to-human transmission is limited and the longest documented chain of transmission is six generations (meaning the last person to be infected in this chain was six links away from the original sick person).

What about the occurrence of the disease?

- The 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 ‘monkeypox’.
- The first human case was recorded in 1970 in the Democratic Republic of the Congo (DRC).
- According to the WHO, 15 countries on four continents have so far reported confirmed cases of monkeypox in humans.

How does the Monkeypox different from the smallpox ?

- The monkeypox virus is an orthopoxvirus, which is a genus of viruses that also includes the variola virus, which causes smallpox, and vaccinia virus, which was used in the smallpox vaccine.

- Monkeypox causes symptoms similar to smallpox, although they are less severe.
- Also the symptoms of both the diseases vary.
- While vaccination eradicated smallpox worldwide in 1980, monkeypox continues to occur in

countries in Central and West Africa, and has on occasion showed up elsewhere.

What are the symptoms and treatment of the disease?

- Monkey pox begins with a fever, headache, muscle aches, back ache, and exhaustion.
- It also causes the lymph nodes to swell (*lymphadenopathy*), which does not exist in smallpox.
- The incubation period (time from infection to symptoms) for monkeypox is usually 7-14 days but can range from 5-21 days.
- **Onset stage**- Within a day to 3 days of the onset of fever, the patient develops a rash that begins on the face and spreads to other parts of the body.
- **Skin eruption stage**- It can last between 2 and 4 weeks, during which the lesions harden, fill up with a clear fluid and then pus, and then develop scabs or crusts.
- **Mortality**- The proportion of patients who die has varied between 0 and 11% in documented cases, and has been higher among young children.
- **Treatment**- There is no safe, proven treatment for monkeypox but WHO recommends supportive treatment depending on the symptoms.
- For purposes of controlling a monkeypox outbreak in the United States, smallpox vaccine, antivirals, and vaccinia immune globulin (VIG) can be used.

What can be done?

- There are number of measures that can be taken to prevent infection with monkeypox virus.
    - Avoid contact with animals that could harbor the virus.
    - Avoid contact with any materials, such as bedding, that has been in contact with a sick animal.
    - Isolate infected patients from others who could be at risk for infection.
    - Practice good hand hygiene after contact with infected animals or humans.
    - Use personal protective equipment (PPE) when caring for patients.

References

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