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MONKEY POX AND ITS EFFECTS

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Introduction:

Monkey pox is a viral zoonotic disease that can occur in humans and some other animals. Monkey pox virus is part of the same family of viruses as variola virus, the virus that causes smallpox. Monkey pox symptoms are similar to smallpox symptoms, but milder, and monkey pox is rarely fatal that occurs primarily in tropical rainforest areas of central and West Africa and is occasionally exported to other regions.

Human monkey pox was first identified in humans in 1970 in the Democratic Republic of the Congo in a 9-month-old boy in a region where smallpox had been eliminated in 1968. Since then, most cases have been reported from rural, rainforest regions of the Congo Basin, particularly in the Democratic Republic of the Congo and human cases have increasingly been reported from across central and west Africa.

The name monkey pox comes from the virus' discovery in monkeys in a Danish laboratory in 1958, which was before WHO adopted its current method for naming viruses and diseases. Monkey pox in both humans and animals is caused by infection with the monkey pox virus – a double-stranded DNA virus in the genus Ortho-poxvirus, family Pox viridae. The virus was first identified in captive monkeys and is found mainly in tropical rainforest regions of Central and West Africa. Monkey pox is usually a self-limited viral infection with a rash that may be painful. Most people recover on their own after a few weeks. People usually develop symptoms 5 to 21 days after being exposed to the monkey pox virus.

DEFINITION:

Monkey pox is a viral zoonotic disease that can occur in humans and some other animals. Monkey pox virus is part of the same family of viruses as variola virus, the virus that causes smallpox. Monkey pox symptoms are similar to smallpox symptoms, but milder, and monkey pox is rarely fatal.

Factors:

Animal-to-human (zoonotic) transmission:

1. Blood, bodily fluids, or cutaneous or mucosal lesions of infected animals
2. Eating inadequately cooked meat and other animal products of infected animals

Human-to-human transmission:

1. Close contact with respiratory secretions, skin lesions of an infected person
2. Recently contaminated objects
3. Prolonged face-to-face contact
4. The placenta from mother to fetus (which can lead to congenital monkey pox)
5. Can be transmitted specifically through sexual transmission routes

Incubation period:

6 to 13 days but can range from 5 to 21 days.

Signs and symptoms

- The invasion period (lasts between 0–5 days) characterized by fever, intense headache, lymphadenopathy , back pain, myalgia and intense asthenia (lack of energy).
- The skin eruption usually begins within 1–3 days of appearance of fever. The rash tends to be more concentrated on the face and extremities rather than on the trunk. It affects the face (in 95% of cases), and palms of the hands and soles of the feet (in 75% of cases). Also affected are oral mucous membranes (in 70% of cases), genitalia (30%), and conjunctivae (20%), as well as the cornea. The rash evolves sequentially from macules (lesions with a flat base) to papules (slightly raised firm lesions), vesicles (lesions filled with clear fluid), pustules (lesions filled with yellowish fluid), and crusts which dry up and fall off. The number of lesions varies from a few to several thousand. In severe cases, lesions can coalesce until large sections of skin slough off.

Complications:

1. Bronchopneumonia
2. Sepsis
3. Encephalitis
4. infection of the cornea with ensuing loss of vision

Diagnosis:

1. Polymerase chain reaction (PCR) is the preferred laboratory test given its accuracy and sensitivity.
2. Biopsy
3. Serology and antigen detection methods
4. Lesion samples sterile tube (no viral transport media) and kept cold.
5. Treatment:
6. An antiviral agent

Prevention

1. Raising awareness of risk factors and educating people
2. Assess the feasibility and appropriateness of vaccination
3. Surveillance and rapid identification of new cases
4. Reducing the risk of zoonotic transmission
5. All foods containing animal meat or parts must be thoroughly cooked before eating.

References:

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2. CDC,24/7,signs and symptoms of Monkey Pox, October 18,2022.
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