CLINICAL ASPECTS OF MONKEYPOX IN DRCONGO.

*Monkeypox epidemiology, surveillance, and laboratory capacity in DRC.*

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HUMAN MONKEYPOX (MPX).

- Human MPX smallpox-like disease mainly reported in the rainforests of central and western Africa caused by an orthopoxvirus.
- First case detected in a child from Basankusu village, Equateur province, DRC, in 1970 after smallpox global eradication.
- Transmission: contact with infected rodent or monkey (72%) or with a patient (28%).
- Majority of patients: children (86%) and non smallpox vaccinated adults.
- Since 1981: National Control program for MPX and viral haemorrhagic fever.
DEFINITION AND ETIOLOGY OF MPX

Human MPX is a tropical zoonotic disease caused by the MPX virus, a member of the genus orthopoxvirus
MONKEYPOX: GEOGRAPHIC DISTRIBUTION IN DRC

- First case detected in 1970 in the village Basankusu (DRC).
- Primary Transmission Animal-Human (spilover)+++.
- Human-human transmission++.
- Since then, renewed interests due to the risk of bioterrorism and the increase in the frequency of cases in the Sankuru and Tshwapa provinces.
MPX RISK FACTORS FOR CHILDREN

- Trapping.
- Hunting
- Handling.
- Dead rodents found in the forest are source of food

Squirrels are particularly the source of MPX in young children in rural areas in DRC.
MPX RISK FACTOR FOR ADULT

- Preparing game for cooking.
- Monkeys found dead in the forest are source of food.

Trapping Hunting
CLINICAL SEVERITY SCORE OF MPX BASED ON NUMBER/LESIONS (WHO)

• Mild illness (<25 skin lesions), no disability.
• (ii) Moderate illness (25-99 lésions), unable to perform most physical activities but does not require nursing cares.
• (iii) Severe illness (100-250 skin lesions), unable to perform most physical activities and requires nursing cares.
• (iv) Grave illness (>250 skin lesions), unable to perform most physical activities and requires intensive nursing cares.
MONKEYPOX CLINICAL APPEARANCE

Severe infection

Mild infection

Subclinical Infection

Lymphadenopathy: 90%
CLINICAL COMPLICATIONS OF MPX

Bacterial conjunctivitis

Corneal opacity
MUCO-CUTANEOUS COMPLICATIONS OF MPX
MPX in adult
CLINICAL DIFFERENTIAL DIAGNOSIS

• Secondary Syphilis:
  • Palm lesions

• MPX
  • Severe chickenpox
  • Residual scars

• Convalescent MPX
  • Residual scars

Prevalence in Pregnant women in Lodja (03-04)
• HIV: 6.6%
• Syphilis: 7.2%
- UCLA-INRB-KSPH: epi-surveillance/Sankuru
- CDC-INRB-KSPH: viro-surveillance/Tswapara
- CDC-INRB-UNIKIN: ecological study of MPXX.
- CDC-INRB-KSPH: clinical trial vaccination of firstline HCW.

CDC-INRB-WHO: laboratory diagnosis
- Orthopox PCR and MPX PCR.
- Gene Expert PCR
CONCLUSION

Given the increase in frequency of MPX in DRC and its emergence outside endemic countries, it is highly recommended to explore the use of existing experimental vaccines.

- **SMALLPOX VACCINE IMVAMUNE**, Bavarian Nordic, Denmark
  - Highly attenuated vaccinia strain that does not replicate in human cells.
  - Safe in immunesuppressed individuals.

- **SMALLPOX VACCINE LC16M8**, Kaketsuken, Japan,
  - Attenuated replication-competent vaccinia virus.
  - Licensed in Japan (>8000 soldiers vaccinated)
  - A potential countermeasure for emergency use against bioterrorism.
  - Use in immunosuppressed individuals.