Clinical description of sixty-six cases of monkeypox virus (MKPV) infection among MSM in an HIV/PrEP French clinic

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Introduction

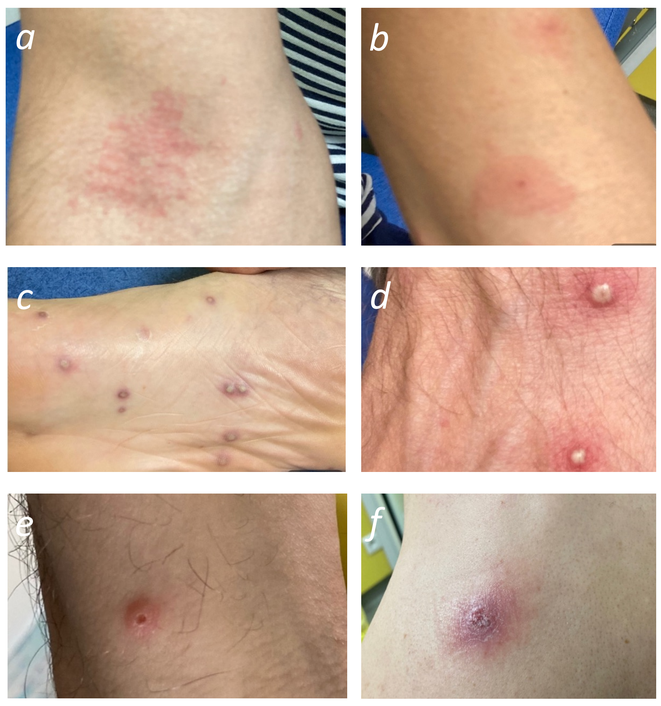
- Since the beginning of the 1970s, monkeypox virus (MKPV) infection was mostly localized in Western and Central Africa, with sporadic outbreaks (1).
- More recently, in May 2022, a worldwide epidemic has emerged in non-endemic countries, mostly affecting men who have sex with men (MSM).
- We report our experience with 66 consecutive patients diagnosed with MKPV infection at the beginning of this epidemic.

Method

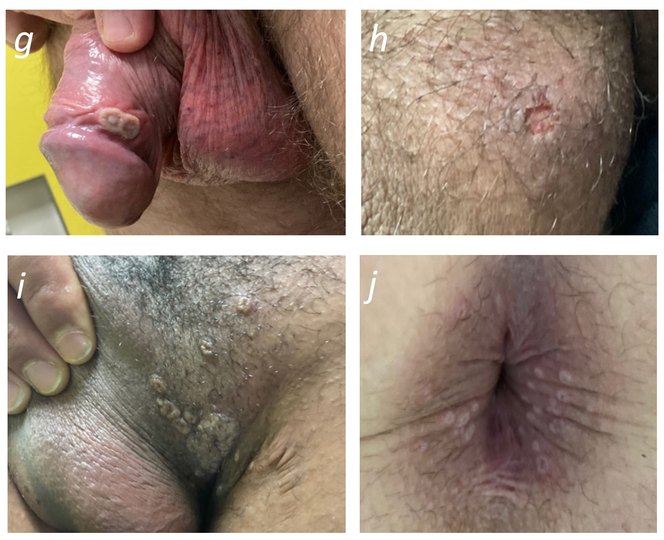
- This observational study was conducted in the Infectious Diseases Department of Saint-Louis University Hospital in Paris.
- We prospectively enrolled all consecutive patients who came to the clinic from June 1st to June 30th 2022, for their routine HIV or PrEP visit, or for an emergency visit, with clinical suspicion of MKPV leading to a confirmed diagnosis using specific PCR test.
- The patients' epidemiological, demographic and clinical data were recorded.

Results

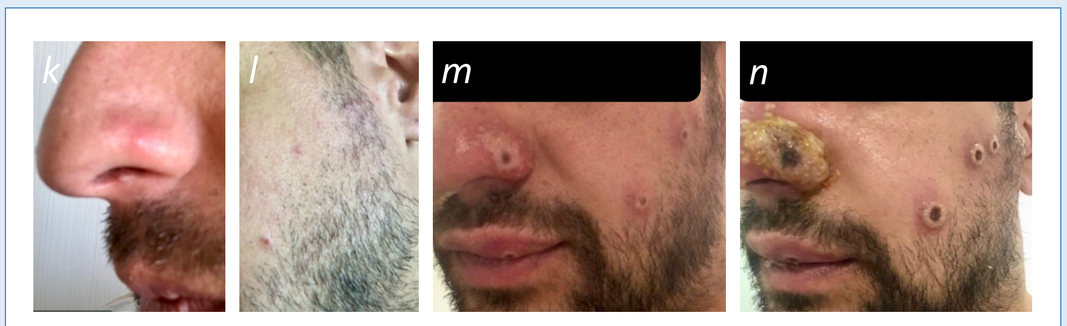
- Sixty-six patients were enrolled, all MSM, median age 39.6 years (range 20.5 – 62.4).
- Thirteen patients (19.7%) were infected with HIV, all with an undetectable viral load, and a median CD4-cell count at 820/mm^3 (range 469 – 1350). Among HIV-negative patients, 84.9% were taking PrEP.
- In 95.5% cases, sexual transmission was most probable. Sixteen patients (24.2%) reported contact with a person later known to be infected with MKPV. The median number of sexual partners was 10 in three months (range 0 – 100).
- Ten patients (15.2%) received smallpox vaccine in their childhood.
- Most patients had systemic viral symptoms : 39 (59.1%) reported fever, 23 (34.8%) reported headache, 36 (54.5%) had myalgia, and 27 (40.9%) had a sore throat.
- All had muco-cutaneous symptoms: 61 (92.4%) had vesicules or pustules, and 42 (63.6%) had ulcerative lesions (*Images a – p*). A pre-existing rash occurred in nine patients (13.6%).
- The median number of lesions was six (range 1 – 80). Most patients had anogenital lesions (52 patients, 78.8%), the other body parts affected were the face (20 patients, 30.3%), the palms or soles (five patients, 7.6%), the mouth (three patients, 4.5%), and the limbs, trunk and/or back (40 patients, 60.6%).
- There was cervical or inguinal lymphadenopathy in 36.4% and 54.5% cases respectively, and seven patients (10.6%) had erythemato-pultaceous angina.
- Hospitalization was necessary in three patients (4.5%): because of compressive cervical adenopathy limiting oral intake, because of facial cellulitis after superinfection of pustules, and because of hyperalgesic anorectal ulcerations necessitating morphinic treatment.
- Median disease duration was 14 days (range 6 – 28).



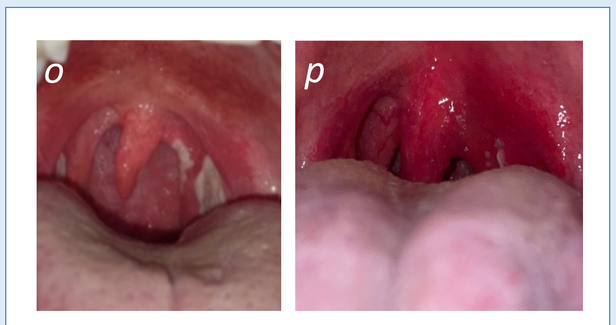
a and *b*: macular lesions (limbs)
c and *d*: pustular lesions (sole and hand)
e and *f*: umbilicated and ulcerative lesions (limbs)



g, *h* and *i*: genital pustular and ulcerative lesions (penis, scrotum and pubis)
j: anal lesions



Orofacial lesions: evolution at day 3 (*k*, *l*), day 8 (*m*), and day 10 (*n*)



o and *p*: erythemato-pultaceous angina

Discussion

- We observed a rapid outbreak of MKPV infection, with various clinical signs. The most prominent characteristic was the high prevalence of anogenital lesions, as later described in international cohorts (2), and differing from the African endemic cases.
- In our department, vaccination of people at risk (MSM with multiple sexual partners, taking PrEP or with HIV infection) was quickly implemented, contributing to the control of the epidemic.

References

1) McCollum AM, Damon IK. Human Monkeypox. Clin Infect Dis. 2014;58(2):260-7

2) Thornhill JP, Barkati S, Walmsley S, Rockstroh J, Antinori A, Harrisson LB et al. Monkeypox Virus Infection in Humans across 16 countries – April-June 2022. N Engl J Med. 2022;387(8):679-691