



Received: 10-09-2026
Accepted: 20-10-2026

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Management of Genital Involvement in Monkeypox (MPOX), DRC, April–June 2025

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DOI: <https://doi.org/10.62225/2583049X.2026.6.6.7096>

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Abstract

Introduction: Monkeypox (MPOX) currently constitutes a major public health concern in the Democratic Republic of Congo (DRC), where the disease remains endemic. Although the generalized cutaneous manifestations of MPOX are relatively well documented in the scientific literature, genital involvement remains insufficiently described, despite its significant clinical, nutritional, psychosocial, and community-related implications. This study aims to describe the clinical, nutritional, and psychosocial characteristics of patients affected by MPOX presenting genital lesions in the Sankuru province.

Methods and Materials: This is a descriptive cross-sectional case series conducted in the Democratic Republic of Congo, in the Sankuru province, between April and June 2025. Sociodemographic, clinical, nutritional, therapeutic, and psychosocial data were collected from eight patients with confirmed genital involvement of MPOX. Patients were selected through an exhaustive approach among cases admitted to the Monkeypox Treatment Centers (CTM) in Lodja.

The collected information was analyzed to describe the clinical presentation of the disease, the probable transmission routes, and the modalities of integrated patient management.

Results: A total of eight patients were included in the study, including five men (62.5%) and three women (37.5%), with a mean age of 31 years (standard deviation: 9.6 years; range: 18–49 years). Genital lesions exhibited significantly slower healing compared to cutaneous lesions located on other body areas, with a mean healing time of 21 ± 3.2 days versus 13 ± 2.8 days for peripheral lesions (p

< 0.05).

Secondary bacterial superinfections were observed in 62.5% of patients. Additionally, two patients (25%) presented severe malnutrition ($\text{BMI} < 16 \text{ kg/m}^2$), which was associated with a significantly longer healing duration, averaging 24 ± 2 days compared to 19 ± 3 days in patients with normal nutritional status ($p = 0.04$).

The probable modes of transmission included sexual transmission (37.5%), intrafamilial transmission (25%), community transmission during social gatherings (25%), and direct spousal transmission (12.5%). A holistic management approach combining medical treatment, nutritional support, and psychosocial care resulted in complete recovery in 87.5% of patients, while adherence to preventive measures was observed in 75% of patients during post-hospital follow-up.

Conclusion: Genital involvement in MPOX represents a significant clinical manifestation in the Sankuru province, characterized by slower healing and an increased risk of local complications.

These findings highlight the necessity of integrated management combining medical care, nutritional support, psychosocial interventions, and community engagement. Integrating these approaches into public health strategies may contribute to improving the clinical prognosis of patients, reducing disease transmission, and promoting the social and familial reintegration of affected individuals.

Keywords: MPOX, Genital Lesions, Medical Management, Nutritional Intervention, Psychosocial Intervention, DRC

Introduction

Monkeypox (MPOX) is an emerging viral zoonosis caused by the MPOX virus, a member of the Poxviridae family closely related to the human smallpox virus. Initially identified in Central and West Africa, this disease now represents a major public health concern due to its capacity for human-to-human transmission and its potential to trigger localized outbreaks (World Health Organization [WHO], 2023). Virus transmission occurs primarily through direct contact with skin or mucosal lesions, bodily fluids, or contaminated objects.

However, more specific transmission routes, such as sexual and intrafamilial transmission, have also been documented, highlighting the complexity of MPOX epidemiological dynamics (Centers for Disease Control and Prevention [CDC], 2022).

Clinically, infection typically presents with fever, myalgia, lymphadenopathy, and a characteristic rash that evolves from macular to vesicular stages and then to crusted lesions. Recent studies have described atypical presentations in adults, particularly lesions localized to the genital area, which are associated with prolonged healing and an increased risk of secondary bacterial complications (CDC, 2022). Such genital involvement can not only impair quality of life and cause psychosocial distress but also contribute to patient stigmatization, reinforcing the need for an integrated management approach that includes medical, nutritional, and psychosocial care.

Moreover, the Democratic Republic of Congo (DRC) faces a particularly fragile social and health context, shaped by decades of armed conflicts, massive population displacements, food insecurity, and under-resourced health systems. In 2026, approximately 26.6 million people in the DRC are experiencing acute food insecurity, and 3.2 million children present with stunted growth due to chronic malnutrition, particularly in provinces affected by conflict (World Food Programme, 2026). Persistent instability, especially in eastern DRC, limits access to basic health services, safe water, and sanitation, thereby exacerbating the socio-health determinants for vulnerable populations (WHO Africa, 2024).

However, the Congolese health system is often overwhelmed by multiple public health emergencies, including outbreaks of cholera, measles, Ebola, and MPOX, while also facing structural deficiencies such as limited access to care, low vaccination coverage, and inadequate epidemiological surveillance (WHO Health Cluster, 2025). These challenges are compounded by deep socio-economic inequalities and high poverty rates, which increase community vulnerability to infectious diseases and malnutrition (Global Hunger Index, 2020).

In this complex context, the involvement of community actors community health workers, local volunteers, and community leaders is essential for early case detection, referral to Monkeypox Treatment Centers (CTM), and the promotion of appropriate preventive measures.

This study aims to describe the clinical, nutritional, and psychosocial characteristics of patients with MPOX presenting genital involvement, admitted to the health services (CTM) of the Sankuru province in Lodja between April and June 2025. It also seeks to better understand the factors associated with this particular form of the disease in an endemic setting.

Accordingly, it is essential to determine the clinical, nutritional, and psychosocial characteristics of patients with MPOX and genital involvement managed in the Lodja CTMs, as well as the factors associated with their occurrence and progression.

The hypothesis of this study is that patients with MPOX and genital involvement may present specific clinical features, potentially linked to certain nutritional and psychosocial conditions, which could influence disease progression and the quality of care.

The expected results are intended to strengthen integrated management strategies and community-based prevention

measures to help reduce morbidity and limit the spread of the virus in endemic regions.

Methods and Materials

This is a descriptive cross-sectional study based on a case series, with the primary objective of describing the clinical, nutritional, and psychosocial characteristics of patients with monkeypox (MPOX) presenting genital lesions. This descriptive approach allowed for detailed documentation of the clinical course of the patients as well as the various therapeutic and supportive interventions implemented, without seeking to establish causal relationships between the variables studied. The study was conducted in the Monkeypox Treatment Centers (CTM) located in Lodja, Sankuru Province, Democratic Republic of Congo.

The study population included all patients with laboratory-confirmed MPOX who presented associated genital lesions. Using an exhaustive selection based on inclusion criteria defined in the research protocol, eight patients were retained for the study, including five men and three women.

Only patients admitted between April and June 2025 were included in the study. All participants had a laboratory-confirmed diagnosis of MPOX with associated genital lesions and were managed in the Monkeypox Treatment Centers (CTM) in Lodja, Sankuru Province. All participants provided consent for the collection and anonymized use of their data for research purposes. Additionally, all patients received psychosocial support throughout their care.

Patients were excluded if they had a diagnosis of MPOX without genital involvement, were admitted outside the study period (April to June 2025), or had incomplete or unavailable clinical or nutritional data. Patients who refused participation or did not consent to data collection and use were also excluded.

Data collection was conducted using a structured, multidimensional approach to comprehensively document sociodemographic, clinical, nutritional, and psychosocial characteristics of MPOX patients with genital lesions. Patients admitted to the CTM in Lodja were identified from hospital registers and laboratory results confirming the MPOX diagnosis.

Sociodemographic data, including age, sex, marital status, and occupation, were collected using a standardized questionnaire administered by trained health personnel. These data were supplemented by reviewing existing medical records.

Clinical information, including lesion location and progression, the presence of comorbidities, and associated complications such as secondary bacterial infections or ocular involvement, was obtained through direct medical observation and consultation of patient clinical records. Administered treatments including antibiotics, antiseptics, antifungals, vitamins, and analgesics were recorded in clinical observation forms specifically designed for patient follow-up.

Nutritional status was assessed using standardized anthropometric measurements, including mid-upper arm circumference, weight, and height, allowing calculation of body mass index (BMI). Nutritional care information, including the provision of ready-to-use therapeutic foods (RUTF) and food support based on a balanced menu, was recorded in a dedicated patient nutrition follow-up register.

Psychosocial dimensions were explored through semi-structured interviews conducted by trained personnel in a

confidential setting, aiming to document patients' psychosocial experiences, sexual behaviors, perceptions of disease-related stigma, and adherence to recommended preventive measures.

Data collection instruments included standardized questionnaires for sociodemographic and clinical data, clinical observation forms for monitoring lesion evolution and complications, and anthropometric tools such as measuring tapes, scales, and stadiometers for nutritional assessment.

All collected data were recorded on anonymized forms and entered into a secure database accessible only to authorized personnel. To ensure the quality and reliability of the data, personnel involved in data collection received prior training on standardized procedures as well as confidentiality and data protection principles. Regular supervision was maintained throughout the data collection process to strengthen data quality.

Patient management was structured and documented around three main dimensions: medical care, nutritional care, and psychosocial support.

Medically, patients received treatments including antibiotics, antiseptics, antifungals, vitamins, and analgesics, according to clinical evolution and observed complications.

The nutritional approach was based on a simplified malnutrition management protocol using ready-to-use therapeutic foods (RUTF), combined with systematic food support for all patients, with particular attention to those presenting signs of malnutrition or increased nutritional risk. This food support was based on individualized dietary counseling to improve nutritional status and accelerate recovery.

The psychosocial component included awareness sessions promoting responsible sexual behaviors, encouraging condom use, preventing disease-associated stigma, and supporting couples in managing the social and relational implications of the infection.

Clinical evolution was monitored throughout hospitalization until complete healing and the end of the observation period. After discharge from the CTM, structured post-hospital follow-up was provided by medical and psychosocial teams in collaboration with community actors, including community health workers, local health agents, and community leaders.

Follow-up included monitoring lesion healing, early detection of potential complications, provision of adapted nutritional advice, and continuation of awareness activities regarding preventive measures. Data collected during follow-up visits were recorded in a standardized register to systematically document the clinical and psychosocial evolution of patients after hospitalization.

The study was conducted in accordance with ethical principles governing research involving human participants. All participants were provided with clear and comprehensible information regarding study objectives, data collection procedures, and their right to refuse or withdraw participation at any time without any impact on medical care. Verbal informed consent was obtained from each participant prior to data collection and documented by the study's health personnel.

All information collected was anonymized from the outset to ensure confidentiality and protect participant identity. Data were coded using unique identifiers and stored in a secure database accessible only to authorized personnel.

Finally, participants received psychosocial support throughout their care and during post-hospital follow-up to reduce disease-associated stigma and promote the adoption of preventive measures within the community.

Results

General characteristics of patients

Between April and June 2025, a total of 8 laboratory-confirmed cases of monkeypox (MPOX) with genital involvement were managed in the Monkeypox Treatment Centers (CTM) of Sankuru Province.

The study population included 5 men (62.5%) and 3 women (37.5%), yielding a male-to-female sex ratio of 1.67. The mean age of patients was 31 ± 9.6 years, with extremes ranging from 18 to 49 years. The majority of patients belonged to the 20–39 year age group ($n = 5$; 62.5%), followed by patients aged 40 years and above ($n = 2$; 25%), and younger adults under 20 years ($n = 1$; 12.5%).

This predominance of young adults is consistent with observations reported by international organizations such as the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC), which identify this age group as particularly exposed due to high social mobility, frequent interpersonal interactions, and a substantial number of close physical contacts.

Identification of monkeypox transmission modes

Sexual transmission was the most frequently reported mode of contamination ($n = 3$; 37.5%), followed by intrafamilial transmission ($n = 2$; 25%). Community transmission during social gatherings, such as funerals and traditional ceremonies, was reported in 2 patients (25%), while a single case of direct spousal transmission (12.5%) was documented.

The identification of these transmission modes was facilitated by the active involvement of community actors, including community health volunteers, local leaders, and community health workers, who contributed to early case detection, notification, and rapid referral to treatment facilities.

This diversity of transmission routes illustrates the propagation dynamics of MPOX, primarily through direct contact with skin or mucosal lesions. Although the study sample is limited, a trend toward predominance of transmission via close contact was observed ($p > 0.05$, Fisher's exact test).

Clinical involvement and associated manifestations

Clinically, genital lesions appeared secondarily in the majority of patients ($n = 6$; 75%) after initial hospitalization for more generalized cutaneous lesions, reflecting the progressive evolution of the disease toward intimate areas during the infection phase.

Healing of genital lesions was significantly slower than that of other skin regions, with a mean duration of 21 ± 3.2 days versus 13 ± 2.8 days for peripheral lesions, a statistically significant difference ($p < 0.05$). This prolonged evolution increased the mean duration of hospitalization, estimated at 18 ± 4 days.

Secondary bacterial infections were observed in 5 patients (62.5%), justifying the use of targeted antibiotic therapy. These infections primarily manifested as local erythema, edema, purulent discharge, and delayed wound healing.

One case of associated ocular involvement was identified (1

patient; 12.5%), suggesting the potential for extra-cutaneous extension of the viral infection.

Additionally, 2 patients (25%) presented with severe malnutrition, defined by a body mass index (BMI) below 16 kg/m². Patients with malnutrition demonstrated significantly longer healing times than those with normal nutritional status, averaging 24 ± 2 days versus 19 ± 3 days ($p = 0.04$). Most healing durations ranged approximately between 22 and 26 days for malnourished patients and 16 to 22 days for patients with normal nutritional status, reflecting individual variability within each group.

These observations highlight the interaction between nutritional vulnerability, socioeconomic precarity, and the clinical severity of the disease. Community actors played a crucial role in the early identification of these vulnerability situations and in the rapid referral of patients to CTM facilities.

Differences between cutaneous and genital lesions

Genital MPOX lesions differed from other cutaneous manifestations due to slower healing and a higher risk of local complications, notably secondary bacterial infections. Peripheral cutaneous lesions on the limbs and trunk generally healed faster, with a mean duration of 10–14 days (mean: 13 ± 2.1 days).

In contrast, genital lesions required an average of 18–25 days to heal (mean: 21 ± 3.2 days), a statistically significant difference ($p = 0.02$; Student's t-test).

This slower healing may be explained by several factors, including mucosal fragility, persistent local moisture, and the high risk of secondary bacterial infections, which complicate the healing process and prolong care duration.

Medical Management

Medical management was based on a graduated therapeutic approach tailored to the clinical evolution of patients.

Sequential antibiotic therapy was implemented in 6 patients (75%) to prevent or treat secondary bacterial infections. The therapeutic regimen included first-line ceftriaxone for all 6 patients (75%), intravenous cloxacillin combined with metronidazole in 4 patients (50%), and extencillin combined with gentamicin for complicated forms in 2 patients (25%).

This therapeutic strategy primarily aimed to prevent secondary infectious complications, in accordance with clinical recommendations for complicated MPOX cases.

Care was supplemented with complementary treatments, including topical antiseptics for all patients (100%), topical antifungals for 37.5%, analgesics for pain management (100%), vitamin C for antioxidant support in 87.5%, and chlorine tablets for disinfection and hygiene measures in all patients (100%).

Community actors also contributed to strengthening therapeutic adherence, particularly through post-hospital follow-up and family sensitization.

Nutritional Management

Nutritional management was a central component of the therapeutic strategy, particularly for patients with malnutrition.

The 2 patients with severe malnutrition (25%) received nutritional care based on ready-to-use therapeutic foods (RUTF) according to the simplified malnutrition treatment approach.

Additionally, systematic food support was provided to all

hospitalized patients (100%). Improvement in nutritional status observed in some patients contributed to reduced healing times and a decreased risk of infectious complications, although this association did not reach statistical significance due to the limited sample size ($p = 0.08$).

Community actors also assisted in identifying vulnerable households, facilitating access to food rations, and ensuring nutritional follow-up after discharge from CTM facilities.

Psychosocial and community management

Psychosocial care was systematically integrated into the overall patient management strategy.

This care included individual and group awareness sessions focused on promoting responsible sexual behavior, correct and consistent condom use, and reducing MPOX-related stigma, to reinforce prevention and improve patients' psychosocial well-being.

Paired management was implemented for 2 couples (25%) to strengthen adherence to preventive measures and reduce the risk of reinfection.

Community actors, in partnership with psychosocial teams, played a central role in promoting acceptance of prevention messages, countering rumors, and actively contributing to the destigmatization of patients within the community, thereby enhancing the effectiveness of public health interventions and social reintegration of affected individuals. In the case of a student (12.5%), specific school-based interventions were conducted with support from teachers and community leaders to facilitate school reintegration and prevent discrimination.

Clinical Evolution

Overall clinical evolution was favorable, with complete recovery observed in 7 patients (87.5%) during the follow-up period.

The mean healing duration for genital lesions was 21 days, compared to 14 days for non-genital cutaneous lesions ($p < 0.05$), confirming the need for prolonged clinical monitoring and reinforced nutritional and psychosocial follow-up.

Progressive adherence to preventive measures was observed in 6 of 8 patients (75%) during post-hospital follow-up. This improvement mainly concerned regular condom use, reduced risky physical contacts, and adoption of better personal and household hygiene practices, reflecting gradual patient adoption of recommended prevention measures after care.

Psychosocial, community, and educational interventions contributed to improved knowledge about MPOX and reduced stigma related to genital lesions.

These observations align with international scientific literature, emphasizing the importance of community interventions, health education, and targeted counseling to improve adherence to preventive measures and reduce stigma in epidemic contexts.

Overall, the results of this study suggest that integrating medical, nutritional, and psychosocial dimensions in the management of patients with MPOX is an essential lever for improving clinical prognosis and limiting infection spread.

Discussion

This series of eight cases confirms that the genital area constitutes a frequent and clinically significant site of monkeypox (MPOX), with markedly slower healing

compared to other body regions.

In this cohort, all patients ($n = 8$, 100%) presented with genital lesions, with a mean healing duration of 21 ± 3.2 days, compared to 13 ± 2.8 days for peripheral cutaneous lesions. These results are consistent with research from the World Health Organization (WHO, 2023) and the Centers for Disease Control and Prevention (CDC, 2022), which describe genital involvement as a common site, associated with an increased risk of complications such as secondary bacterial infections and prolonged lesion healing.

Sexual and spousal transmission was particularly predominant in this series, accounting for 50% of identified modes of contamination. Four patients were infected through intimate contact, highlighting the importance of an integrated sexual health approach, including behavior change education, promotion of responsible sexual practices, and systematic condom use.

Intra-familial and community transmission was documented in 25% of patients, confirming the central role of close contacts in virus propagation, in line with WHO recommendations for endemic contexts (World Health Organization, 2023). These findings reflect the complexity of transmission dynamics and reinforce the need for strategies combining individual prevention and community-level interventions, as reported by Reynolds *et al.* (2019) and Ogoina *et al.* (2020) [8] in studies conducted in Central Africa.

Clinically, genital lesions were often painful and predisposed to secondary bacterial infections, necessitating sequential antibiotic therapy. One patient presented with concomitant ocular involvement, while two patients (25%) had severe malnutrition, defined by a body mass index (BMI) below 16 kg/m^2 . In these malnourished patients, lesion healing duration was significantly longer, averaging 24 ± 2 days compared to 19 ± 3 days in patients with normal nutritional status, a statistically significant difference ($p = 0.04$).

These findings highlight the close interaction between nutritional vulnerability, socioeconomic precarity, and clinical severity, which can delay healing and increase the risk of complications. This observation aligns with the work of Titanji *et al.* (2023) and CDC recommendations (2022), which emphasize that patients with vulnerability factors such as malnutrition or adverse socioeconomic conditions are more likely to develop complicated MPOX and require multidimensional care.

The psychosocial and community approach proved essential to successful management. Stigma is a major barrier to early care-seeking and adherence to preventive measures. In this series, psychosocial and community interventions including patient and partner sensitization, condom distribution, and mobilization of community actors promoted progressive acceptance of preventive measures and supported social reintegration.

These practices are consistent with WHO and CDC recommendations (CDC, 2022; WHO, 2023) and corroborated by studies on adherence to preventive measures in endemic contexts (Bhutta *et al.*, 2021; Gelli, Harris, & Shah, 2021 [5]).

The experience in Sankuru Province also illustrates the importance of an integrated approach combining medical, nutritional, and psychosocial care. Nutritional management, including the administration of ready-to-use therapeutic

foods (RUTF) to malnourished patients, contributed to improved lesion healing and reduced the risk of complications.

Medically, the combination of antiseptics, antifungals, antibiotics, and vitamins allowed pain control, prevention of secondary infections, and accelerated healing, in accordance with national and international clinical protocols (Bremar *et al.*, 2017).

The recognition of MPOX as a public health emergency by the WHO in 2024 underscores the need to strengthen surveillance, diagnosis, and access to care in endemic areas such as the Democratic Republic of Congo. Integrating medical, nutritional, and psychosocial care, coupled with community-based interventions, constitutes a holistic approach in line with international recommendations (CDC, 2022; WHO, 2023). This multidimensional strategy not only improves clinical recovery but also reduces stigma and enhances adherence to preventive measures (Gillespie, van den Bold, & Alderman, 2019) [6].

Finally, the results of this study have practical implications for local health policy. First, they highlight the importance of early detection and rapid referral to MPOX treatment centers, facilitated by community health volunteers and local health workers. Second, they confirm the effectiveness of multidimensional care combining medical treatment, nutritional support, food supplementation, and psychosocial interventions, which promoted healing and limited stigma. Third, targeted nutritional care for malnourished patients appears essential to support clinical recovery.

Finally, promotion of preventive behaviors and reduction of stigma through health education and community mobilization should be systematically integrated into local protocols.

Thus, genital lesions in MPOX are not rare manifestations but represent an important clinical site requiring an integrated approach adapted to the local context. These results provide concrete guidance to improve national and regional protocols by combining surveillance, treatment, prevention, and community mobilization to reduce transmission, prevent complications, and improve patient outcomes.

Study Limitations

This study has several limitations that should be considered when interpreting the results. First, the small sample size ($n = 8$) limits the statistical power and the generalizability of the findings. In addition, the descriptive nature of the case series, without a comparison group, does not allow for establishing causal relationships between the variables studied.

The relatively short data collection period (April–June 2025) may also not reflect potential epidemiological variations of MPOX. Furthermore, some information, particularly regarding sexual behaviors and psychosocial perceptions, relied on participants' self-reports and may therefore be subject to reporting bias.

Moreover, the study was conducted in a specific geographical context (MPOX treatment centers), which may limit the transferability of the results to other settings. Finally, some detailed clinical and biological data could not be analyzed due to logistical constraints, and the duration of post-hospital follow-up remained limited for assessing long-term outcomes.

Conclusion

Genital involvement in monkeypox (MPOX) represents a significant clinical, nutritional, and psychosocial concern in Sankuru Province.

The results of this case series demonstrate that genital lesions are a frequent and clinically important manifestation of the disease. In this cohort, all patients presented with genital lesions, which healed more slowly than lesions located on other areas of the body, with a mean healing time of 21 ± 3.2 days compared to 13 ± 2.8 days for peripheral lesions.

This prolonged course exposes patients to an increased risk of local complications, notably secondary bacterial infections.

The study also highlights the role of vulnerability factors, particularly severe malnutrition, which was associated with longer healing times for genital lesions. Malnourished patients had a mean healing duration of 24 ± 2 days compared to 19 ± 3 days in patients with normal nutritional status, emphasizing the importance of nutritional status in the clinical evolution of the disease. These observations illustrate the interaction between nutritional vulnerability, socioeconomic precarity, and clinical severity, reinforcing the need to integrate nutritional management into therapeutic strategies.

Furthermore, the results demonstrate the importance of a comprehensive, multidimensional approach to managing patients with MPOX presenting with genital lesions. The combination of appropriate medical care, tailored nutritional support, and structured psychosocial assistance contributed to improved clinical outcomes and facilitated complete recovery in the majority of patients.

The involvement of community actors was also critical for the early detection of cases, referral to care facilities, reinforcement of adherence to preventive measures, and reduction of stigma within the community.

Thus, a holistic approach combining medical, nutritional, psychosocial, and community-based interventions appears essential to optimize the management of MPOX patients in endemic settings. Integrating these dimensions not only improves clinical outcomes but also promotes social and family reintegration of patients after recovery.

Finally, these results underscore the need to adapt care protocols and public health strategies to local realities by strengthening surveillance, health education, community-based prevention, and integrated patient management. Such an approach helps reduce disease transmission, prevent complications, and enhance the resilience of health systems against MPOX outbreaks in endemic regions.

Research Contributions

Based on the results obtained, this study provides several important scientific and operational contributions to the understanding and management of genital involvement in monkeypox (MPOX) in endemic contexts.

First, it offers a detailed clinical characterization of genital lesions associated with MPOX in a real-world hospital care setting in Sankuru Province. The results highlight that genital lesions heal significantly more slowly than peripheral skin lesions, with a mean duration of 21 ± 3.2 days compared to 13 ± 2.8 days for lesions on the limbs and trunk ($p < 0.05$). This prolonged course is accompanied by a high risk of secondary bacterial infections, observed in 62.5% of patients, necessitating tailored antibiotic therapy.

These observations contribute to expanding the existing scientific literature on genital manifestations of MPOX, which remain relatively under-documented in African settings.

Second, the study highlights the influence of nutritional status on the clinical course of the disease. Patients with severe malnutrition (25% of cases) exhibited significantly longer healing times, with an average of 24 ± 2 days compared to 19 ± 3 days in patients with normal nutritional status ($p = 0.04$). These results emphasize the interaction between nutritional vulnerability, socioeconomic precarity, and clinical severity, confirming the importance of integrating nutritional assessment and management into MPOX care protocols.

Third, this research contributes to a better understanding of MPOX transmission modes in the local context. The results show that sexual transmission was the most frequent mode of infection (37.5%), followed by intrafamilial transmission (25%) and community transmission during social gatherings (25%), while one case of direct spousal transmission (12.5%) was documented. Although the sample size is limited, these observations illustrate the predominance of close-contact transmission, reinforcing the importance of integrating familial, community, and sexual dimensions into prevention strategies.

Fourth, the study underscores the value of a holistic approach to the management of MPOX patients. The combination of medical care, nutritional support, and psychosocial interventions, alongside the mobilization of community actors, contributed to generally favorable clinical outcomes, with complete recovery observed in 87.5% of patients. Progressive adherence to preventive measures was also observed in 75% of patients during post-hospital follow-up, particularly regarding condom use, reduction of risky contacts, and improvement of hygiene practices.

Fifth, the study highlights the central role of community actors in MPOX management. The involvement of community relays, local leaders, and community health workers facilitated early case detection, referral to treatment centers, and dissemination of preventive messages. These actors also helped reduce stigma associated with genital lesions and supported social reintegration of patients after recovery. This community dynamic represents a critical lever for strengthening health surveillance and prevention strategies in resource-limited settings.

Finally, this study provides empirical data useful for reinforcing and contextualizing public health recommendations regarding the prevention and management of MPOX. The results support international guidance advocating an integrated approach combining medical care, nutritional support, psychosocial assistance, and community mobilization.

Contribution of Results to Protocol Development and Future Research

Observations from this case series provide concrete information that can improve national and regional protocols for managing MPOX with genital involvement. The identification of slower healing of genital lesions, a high frequency of secondary bacterial infections (62.5%), and cases of severe malnutrition underscores the need for differentiated management protocols tailored to these specific manifestations.

In this context, several therapeutic strategies can be considered. The use of sequential antibiotic therapy, observed in 75% of patients, can help prevent and treat bacterial superinfections frequently associated with genital lesions.

Moreover, the implementation of targeted nutritional interventions, including ready-to-use therapeutic foods (RUTF) and post-hospital nutritional follow-up, appears essential for patients with malnutrition or at nutritional risk. Systematic integration of psychosocial and educational interventions is also crucial to reduce stigma and improve adherence to preventive measures.

The study results also emphasize the need to strengthen community-based prevention and surveillance strategies. The identified transmission modes, including sexual, spousal, and intrafamilial, highlight the importance of promoting responsible sexual behavior, condom use, and community health education within prevention programs. The experience documented in this study demonstrates that mobilizing community actors is key for early case detection and patient support after hospitalization, justifying their formal integration into local public health policies.

Additionally, the collected data open important perspectives for future scientific research. Detailed documentation of healing times, observed complications, and the impact of nutritional and psychosocial interventions provides a starting point for comparative studies in other regions. The study also highlights gaps in the scientific literature on genital MPOX, particularly regarding nutritional impact, stigma prevention, and adherence to preventive measures.

In the long term, conducting prospective, multicenter studies could validate the effectiveness of integrated medical, nutritional, and psychosocial approaches and generate more robust scientific data to update clinical guidelines and community strategies for MPOX management in endemic settings.

Ultimately, this study goes beyond a simple clinical description of observed cases. It provides relevant empirical evidence to improve care practices, guide the development of protocols adapted to genital MPOX, and inform future research aimed at optimizing prevention, treatment, and social reintegration of patients in endemic areas.

Conflict of Interest

The author declares no financial and personal conflicts of interest that could have influenced the conduct or results of this study.

Acknowledgements

The author expresses sincere gratitude to the local authorities, particularly the health officials, for their commitment to patient care. Thanks are also extended to community actors and local leaders for their valuable contributions to awareness-raising, post-hospital follow-up, and patient support within the community.

Acknowledgement is also given to the patients and their families for their collaboration and trust.

Author Contribution

Dr. Moussa ISSA LENDE conceptualized and led the study, supervised data collection and analysis, wrote the manuscript, and approved the final version for publication.

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