SRYAHWA PUBLICATIONS

Archives of Urology
ISSN: 2638-5228 | Volume 7, Issue 2, 2025
https://doi.org/10.22259/2638-5228.0702001

CASE REPORT

# Balanic Myiasis in an Elderly Patient: Clinical Presentation and Environmental Factors

**Tetinou Fouelefack Aloys-Gibson[1], Kogui Douro Akim[1], Mutarambirwa Henri Donald[2], Lekeulem Tebon Rolande Fleurine[3], Hodonou Fred[1], Avakoudjo Dejinnin Josué Georges[1]**

*[1]Clinique Universitaire d'Urologie-Andrologie, Centre Hospitalier Universitaire Hubert Koutoukou Maga, Cotonou, Bénin*
*[2]Migration health assessment center, Yaoundé, Cameroon*
*[3]Clinique Universitaire de Dermatologie-Vénéréologie, Centre Hospitalier Universitaire Hubert Koutoukou Maga, Cotonou, Bénin.*

Received: 24 May 2025 Accepted: 12 June 2025 Published: 20 June 2025

*Corresponding Author: Dr. TETINOU FOUELEFACK Aloys-Gibson, Clinique Universitaire d'Urologie-Andrologie, Centre Hospitalier Universitaire Hubert Koutoukou Maga, Cotonou, Bénin.

## Abstract

**Context:** Myiasis is an infestation of vertebrate tissues or organs by dipteran flies, mainly of the order *Cyclorrhapa*. Although the cutaneous form is the most common, urogenital infections are also rare.

**Case Report:** A 70-year-old alcoholic and smoker consulted with penile lesions that appeared two weeks after untreated pruritus of the glans penis. Clinical examination revealed five furunculoid lesions on the glans with the emergence of larvae. The diagnosis was balanic myiasis. Treatment consisted of bi-digital extraction of the larvae, local care, antibiotic therapy and analgesic treatment. Progress was favourable after three weeks. An environmental investigation revealed precarious hygiene conditions. Recommendations were made to improve the patient's personal and environmental hygiene.

**Conclusion:** Balanic myiasis is a rare disease, encouraged by poor personal and environmental hygiene. It is often difficult to diagnose because of its unusual location and varied symptoms. This observation highlights the importance of hygiene in preventing these infestations, even in a context of limited medical resources.

**Keywords:** Balanic Myiasis, Diptera larvae, Poor hygiene conditions.

## 1. Introduction

Myiasis is an infestation of vertebrate tissues or organs by larvae of Diptera, mainly of the order *Cyclorrhapa*, whose larvae can develop within the anatomical structures of the host. Although the cutaneous form is the most common, urogenital localization remains rare, representing only 0.7% of documented cases, with a female predominance [1,2]. The severity of the condition depends on the location and degree of tissue destruction, and can lead to severe complications requiring major operations such as penectomy [3]. We report a case of balanic myiasis in an elderly polygamous man, with lesions mimicking furuncles, syphilitic chancres or herpetic lesions.

## 2. Observation

A 70-year-old male patient, with a history of chronic alcoholism and tobacco use, working as a pig farmer and cultivator in Dschang (Western Cameroon), presented with penile lesions without associated dysuria. He reported symptoms that had developed over the preceding two weeks, initially manifesting as untreated pruritus of the glans penis, which subsequently progressed to the formation of whitish, painful lesions on the glans.

General physical examination revealed good overall condition, poor oral and dental hygiene, vital parameters within normal limits and normal urination.

**Citation:** Tetinou F.A.G, Kogui D.A, Mutarambirwa H.D, Lekeulem T.R.F, Hodonou F, Avakoudjo D.J.G. Balanic myiasis in an elderly patient: clinical presentation and environmental factors. Arch Urol. 2025;7(2):1-4

©The Author(s) 2025. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

The external genitalia were male, with an inflamed glans on inspection, and five oval furunculoid lesions about 1 cm in diameter, with regular margins and a whitish background, exuding purulent secretions (Figure 1a). Digital pressure on one of the lesions revealed the intermittent emergence of the respiratory pole of a larva (Figure 1 b).

The diagnosis of myiasis of the glans was accepted without formally ruling out syphilitic chancres. Paraclinical examinations, including a CBC, HIV serology, Syphilis serology (TPHA and VDRL), *herpes simplex* virus test, Urine culture with sensitivity testing, and fasting blood glucose, were unremarkable.

Treatment consisted of extraction of the larvae by bi-digital pressure on the five lesions of the glans, carried out on an outpatient basis and without anaesthetic (Figure 1c). The medical treatment combined local care with Povidone-iodine, antibiotic therapy with Cloxacillin (1g/12h for 10 days) and analgesic treatment with Paracetamol per os (1g/12h for 5 days). A three-week follow-up showed a favourable evolution (Figure 2).

A visit was made to the patient's home for an aetiological investigation, and it was noted that the patient is known not to wear underwear, including when working on his plantation or piggery. His home environment was characterised by a large compound with open latrines, comprising four uncovered openings with no footrests to raise the user (Figure 3a). The latrines were very close to the pigsty (less than 5 metres) (Figure 3b and 3c). The septic tank was saturated and used as a dumping ground (Figure 3d). The practice of drying clothes was inadequate, using improvised supports such as stones or bamboo structures (Figure 3e and 3f).

Following the patient's environmental assessment, recommendations were made, including systematically wearing underwear, improving latrine hygiene (covering septic tanks, installing footrests in latrines), and optimising laundry drying practices away from latrines and the pigsty. A health education session was held with the patient's wives to reinforce these preventive measures.

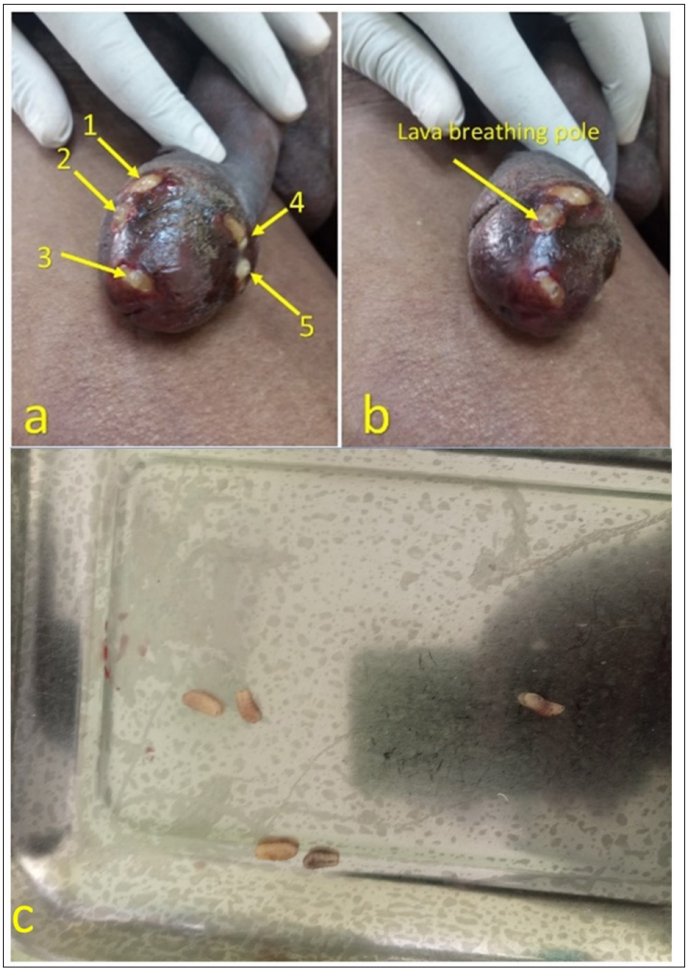


**Figure 1.** *a=Location of the five lesions on the glans (1, 2, 3, 4 and 5), b= Larva breathing pole, c= Extracted larvae*

**Figure 2.** *Favourable evolution of lesions of the glans penis.*


**Figure 3.** *a= Location of the four defecation holes in the latrines, b-c= proximity between the latrines and the pigsty, d= full septic tank used as a waste disposal area, e-f= laundry dried on the stones and bamboo supports*

## 3. Discussion

Urogenital myiasis is a rare but complex disease, characterised by larval infestation in the genital area, mainly affecting vulnerable populations such as the elderly, immunocompromised or those with poor personal hygiene [1,4]. The clinical presentations are polymorphous, ranging from penile involvement to scrotal and perineal infestations, with a predominance in male subjects and elderly patients [2,5].

The main risk factors include poor hygiene, chronic disease, immunosuppression and low socio-economic status [1,2,4]. The geographical distribution of the species varies considerably, with *Lucilia sericata* predominating in Europe and North America, while *Psychoda albipennis* is more common in Turkey and Asia [6]. In Africa, although observations are more limited, a potential diversity of pathogens is suggested [7]. Furunculous and urogenital myiasis are infections caused by various species of Diptera, notably *Hypoderma*, *Cordylobia*, and in Africa, particularly Cordylobia anthropophaga [7,8]. Precise identification of the larvae requires detailed analysis of their morphology after extraction and appropriate preservation, enabling the infestation mechanism to be understood and preventive measures to be established [8].

Myiasis occurs after the dipteran larva penetrates healthy skin, where an erythematous nodule resembling a boil develops, with one or more maggots inside [8]. This is the case with our patient, a farmer living in a rural environment with poor hygiene, who wanders around without underwear in a compound with open latrines near a pigsty, thereby encouraging the proliferation of the flies responsible for his infestation.

The clinical symptoms of urogenital myiasis are variable, with some patients remaining asymptomatic and others developing severe symptoms. General symptoms include abdominal pain, nausea, itching, rectal bleeding, vomiting and lateral pain, and specific urinary symptoms include dysuria, pollakiuria, haematuria and larvae in the urine. When the glans is involved, lesions may be seen in the form of ulcers. Our patient presented with ulcerative lesions mimicking syphilitic chancres [9].

The diagnosis of myiasis is, first and foremost, clinical and is based on careful observation of the elementary lesion, which is an inflammatory papule with a furunculoid appearance in which the intermittent emergence of the respiratory pole of the larva can be observed. In the furunculoid form of the disease, the larvae penetrate the skin, leading to the formation of painful inflammatory nodules that can form fistulas in the internal organs or on the surface of the skin, as observed in our patient.

Differential diagnoses of urogenital myiasis include sexually transmitted infections, tumour lesions, genital ulceration and parasitosis, requiring careful clinical evaluation [6]. Because of its furunculoid clinical appearance, myiasis is often confused with other dermatoses of infectious origin, such as bacterial abscess, mycobacterial infection (tuberculous or non-tuberculous), fungal infection, actinomycosis, superinfected epidermoid or sebaceous cyst or tungosis [7].

Treatment requires a multidisciplinary approach combining mechanical removal of larvae, wound treatment, preventive antibiotic therapy and, if necessary, surgical intervention [10]. Documentation and precise identification of larval species remain essential to optimise management [8]. In our case, the patient underwent mechanical extraction of the larvae, local wound treatment and antibiotic therapy to prevent superinfection, but due to the unavailability of an expert in entomology, the extracted larvae were not identified.

The potential complications are significant, including the risk of secondary infection, tissue destruction and, in extreme cases, the need for major surgery such as amputation. Cases have been reported requiring invasive procedures such as partial or total amputation, highlighting the potential severity of this condition [4].

Prevention is based on improved personal hygiene practices, early screening of at-risk populations and community awareness-raising [6]. Interventions should target the elderly, people with reduced mobility and those living in precarious health conditions [10].

## 4. Conclusion

Balanic myiasis is a rare condition that is encouraged by poor personal and environmental hygiene. It is often difficult to diagnose because of its unusual location and varied symptoms. This observation highlights the importance of hygiene in preventing these infestations, even in a context of limited medical resources.

### Declaration

### Approval and Consent to Participate

The patient gave informed consent to take part in this study and for the home visits carried out as part of the environmental survey.

### Consent to Publication

Tacit consent was obtained from the patient for the publication of this clinical case and associated images, including photographs of the lesions and his home environment.

### Funding

No funding was provided for this study.

## 5. References

1. Paul S, Upreti P, Makhija A, Nautiyal R. Urogenital myiasis - an atypical presentation. Autops Case Rep. 2020;11:e2020192.
2. Passos MRL, Barreto NA, Varella RQ, Rodrigues GHS, Lewis DA. Penile myiasis: a case report. Sex Transm Infect. 2004;80(3):183-4.
3. Tavares AJ, Barros R, Favorito LA. Urgent penectomy in a patient presenting with epidermoid carcinoma of the penis associated to myiasis. Int Braz J Urol. 2007;33(4):521-2.
4. Faridnia R, Soosaraei M, Kalani H, Fakhar M, Jokelainen P, Zolfaghari Emameh R, et al. Human urogenital myiasis: a systematic review of reported cases from 1975 to 2017. Eur J Obstet Gynecol Reprod Biol. 2019;235:57-61.
5. Mbaye PA, Sagna A, Ndong A, Ndoye NA, Ndour O, Ngom G. Myiase scrotale chez l'enfant: à propos d'un cas. Afr J Urol. 2018;24(4):399-401.
6. Francesconi F, Lupi O. Myiasis. Clin Microbiol Rev. 2012;25(1):79-105.
7. Lauand GA, Lima FGGP, da Silva RP, Santiago LR, Dantas JB, Silva CJ, et al. Primary myiasis in surgical wound of mandible symphisis fracture. Case Rep Pathol. 2019;2019:5393405.
8. Freitas DM, Aranovich F, Olijnyk JN, Lemos R. Genital myiasis associated with genital piercing. Case report. Sao Paulo Med J. 2018;136(6):594-6.
9. Singh A, Kaur J. Occurrence of human urogenital myiasis due to neglected personal hygiene: a review. Trans R Soc Trop Med Hyg. 2019;113(1):4-10.
10. Lopes-Costa PV, Dos Santos AR, Pereira-Filho JD, Da Silva BB. Myiasis in the uterine cavity of an elderly woman with a complete uterine prolapse. Trans R Soc Trop Med Hyg. 2008;102(10):1058-60.