



PENILE MYIASIS IN AN ELDERLY DIABETIC MALE WITH INDWELLING CATHETER: A RARE CASE REPORT

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ABSTRACT

Background: Myiasis, the infestation of human tissue by fly larvae, is an uncommon clinical entity, particularly in the urogenital region. Penile myiasis is exceptionally rare and usually occurs in debilitated patients with poor hygiene or indwelling catheters. **Case Presentation:** We report a 73-year-old male with a history of diabetes mellitus, hypertension, coronary artery disease, and chronic kidney disease, who presented with fever, decreased urine output, and penile ulcerations. He had undergone prior urological interventions and was on long-term catheterization. On examination, paraphimosis with multiple penile ulcers infested with live maggots was noted, along with a sacral bedsore. Laboratory investigations revealed leukocytosis, hyponatremia, renal dysfunction, and hypoalbuminemia. Imaging demonstrated bilateral renal calculi with an indwelling left DJ stent. The patient underwent emergency debridement, circumcision, removal of maggots, and bladder calculi extraction. Cystoscopy excluded intravesical myiasis. He was managed with antibiotics, analgesics, supportive care, and catheter care. The patient improved symptomatically and was discharged with appropriate follow-up. **Conclusion:** Penile myiasis is a rare but important condition in debilitated, catheterized patients. Prompt recognition and comprehensive management are essential to prevent severe complications, including intravesical spread and sepsis. Preventive measures, including hygiene education and careful catheter care, are crucial in at-risk populations.

KEYWORDS: Penile myiasis, urogenital myiasis, catheter-associated infection, elderly, case report.

INTRODUCTION

Myiasis refers to the invasion of human or vertebrate tissues by dipterous fly larvae (maggots), which feed on dead or living tissue, body fluids, or ingested food. While cutaneous myiasis is relatively more common, urogenital myiasis is exceedingly rare, with only sporadic case reports published worldwide. Predisposing factors include poor hygiene, chronic wounds, and immune suppression, indwelling catheters, or advanced

age. Herein, we report a rare case of penile myiasis in a debilitated elderly male with multiple comorbidities and an indwelling urinary catheter.

CASE REPORT

A 73-year-old male presented with fever and chills for 3 days, along with reduced urine output. He had undergone left ureterorenoscopic lithotripsy (URSL) with bilateral DJ stenting for calculi one month prior and had since

been on an indwelling catheter. His medical history included diabetes mellitus, systemic hypertension, coronary artery disease, and chronic kidney disease.



On admission to the SICU, he appeared thin- built, febrile, and dehydrated. Vitals showed BP 100/70 mmHg and HR 100/min. Genital examination revealed paraphimosis with multiple ulcers over the glans penis harboring live maggots, extending to the coronal sulcus. A silastic catheter was in situ, draining clear urine. Grade II presacral bedsore was also present. Systemic examination was otherwise unremarkable.

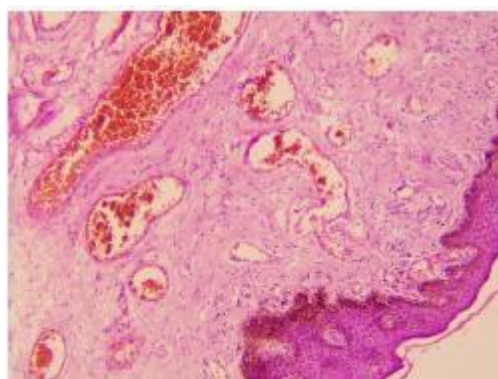
Laboratory findings showed markedly elevated CRP (23.1 mg/dL), leukocytosis (TLC $20.6 \times 10^3/\mu\text{L}$; neutrophils 91%), anemia (Hb 10.0 g/dL),

hypoalbuminemia (2.4 g/dL), hyponatremia (116 mmol/L), and renal impairment (urea 104 mg/dL; creatinine 3.2 mg/dL). Coagulation profile revealed INR 1.5. Chest radiograph was normal. Imaging (X-ray and CT KUB) confirmed bilateral renal calculi, left DJ stent in situ, bladder wall thickening, and small vesical calculi fragments.



Chest x-ray: Normal

After stabilization, the patient underwent debridement, removal of maggots, and circumcision under regional anesthesia, with adjunctive turpentine oil application. During surgery, larvae were seen crawling towards the urethra, raising suspicion of bladder involvement; hence, cystoscopy was performed, which revealed no intravesical larvae but showed multiple bladder calculi, trabeculations, debris, and features of bladder outlet obstruction. Bladder calculi were extracted and bladder wash was performed. Preputial skin biopsy showed chronic balanoposthitis.



Post-operatively, the patient was continued on antibiotics, analgesics, alpha-blockers, and supportive care. He improved clinically and was discharged with a catheter in situ and strict follow-up instructions.

DISCUSSION

Penile myiasis is a rare form of urogenital myiasis, with most published cases linked to poor hygiene, advanced age, chronic illness, or indwelling catheters. Dipterous

larvae responsible include *Dermatobia hominis*, *Cordylobia anthropophaga*, and *Chrysomya bezziana*. The clinical presentation ranges from localized furuncular lesions to extensive tissue destruction, occasionally extending into the urethra or bladder. Diagnosis is primarily clinical, based on visualization of larvae. Imaging and endoscopy are useful when deeper or intraluminal spread is suspected.

Management requires a combination of mechanical removal of larvae, topical or occlusive agents (e.g., turpentine oil, petroleum jelly), wound debridement, systemic antibiotics, and supportive care. In severe infestations, adjunctive ivermectin has been used. Preventive measures— including catheter hygiene, wound care, and patient education—are vital to reduce recurrence. Our case underscores the importance of early recognition, multidisciplinary management, and preventive strategies in debilitated, catheterized patients.

CONCLUSION

Penile myiasis with possible intraluminal extension is a rare but serious entity, especially in patients with urinary catheterization and multiple comorbidities. Clinicians should maintain a high suspicion in patients presenting with genital lesions, visible larvae, urinary symptoms, or unexplained local inflammation. Prompt mechanical removal, debridement, catheter care, and thorough evaluation, including cystoscopy, are essential. Preventive strategies — patient education, hygiene reinforcement, catheter maintenance — are critical to reducing recurrence in high-risk populations.

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