International Journal of Research in Dermatology
Damodaran D et al. Int J Res Dermatol. 2025 Jan;11(1):61-63
http://www.ijord.com

DOI: https://dx.doi.org/10.18203/issn.2455-4529.IntJResDermatol20243878

Case Report

Pseudoepitheliomatous keratotic and micaceous balanitis: a rare interesting case report

Devi Damodaran, Rajesh Rajagopalan*, Mohankumar Vethanayagam, Revathi Kandhasamy

Department of Dermatology, Government Erode MCH, Perundurai, Tamil Nadu, India

Received: 27 September 2024
Accepted: 27 November 2024

***Correspondence:**
Dr. Rajesh Rajagopalan,
E-mail: rajeshderma@gmail.com

ABSTRACT

Pseudoepitheliomatous micaceous balanitis (PEKMB) is an uncommon non-venereal dermatosis primarily affecting males. PEKMB typically affects individuals above 50 years of age, with circumcision being a potential predisposer. Here, we report a case of a middle-aged male who was referred from the surgery department with genital lesions persisting even with treatment for 6 months. Clinical examination revealed hypopigmented to erythematous lesions with scaling over the glans penis, accompanied by urethral meatus narrowing. Despite conservative treatments on his own and with general practitioners, there was no improvement. Histopathological examination confirmed the features of PEKMB without malignancy. Treatment with topical emollients/ 5% 5 fluorouracil was initiated. Differential diagnoses include psoriasis, circinate balanitis, and malignant squamous epithelioma. Treatment options include topical steroids, 5% 5-fluorouracil cream, photodynamic therapy (PDT), etc. This case highlights the rarity of PEKMB and underscores the importance of early diagnosis and long-term follow-up.

Keywords: Pseudoepitheliomatous micaceous balanitis, 5-fluorouracil, Non-venereal dermatosis, PEKMB

INTRODUCTION

Pseudoepitheliomatous micaceous balanitis (PEKMB) is a rare dermatological condition characterized by hyperkeratotic lesions on the glans penis, often mimicking squamous cell carcinoma. It was first described by Lortat Jacob and Civatte in 1961.[1,2] Although typically benign, chronic cases may progress to malignancy. Herein, we present a case of PEKMB and discuss its clinical features, diagnosis, and management

CASE REPORT

A male in his early 50s was referred from the surgery department with genital lesions persisting for 6 months. History revealed painless, non-itchy hypo-pigmented to erythematous lesions with mild to moderate scaling over the glans penis, occasionally accompanied by pain during micturition. The patient had undergone circumcision at the age of 7 for paraphimosis. No symptoms suggestive of Reiter's disease or high-risk sexual behavior. Despite using homemade coconut oil, over-the-counter medications and few creams prescribed by general practioners, there was no iota of improvement. Erythematous plaque around the urethral orifice surrounded by hypopigmented scaly plaques involving the glans penis, with a narrow pinpoint urethral orifice (Figure 1 A and B). Surrounding the lesions, atrophic and hyperpigmented coronal sulcus with normal shaft and scrotum. With these clinical findings on local examination, the diagnosis of the PEKMB plaque stage was made. There are no regional lymphadenopathy and the perianal region was normal. Basic investigations including CBC, RFT, and LFT were within normal limits, and viral markers were negative. Skin biopsy from the lesional site confirmed features of PEKMB without no evidence of squamous atypia ruling out malignancy. Patient was started on topical application of emollients

and 5% 5-Flurouracil cream and partial remission was observed after 6 weeks (Figure 1 C).

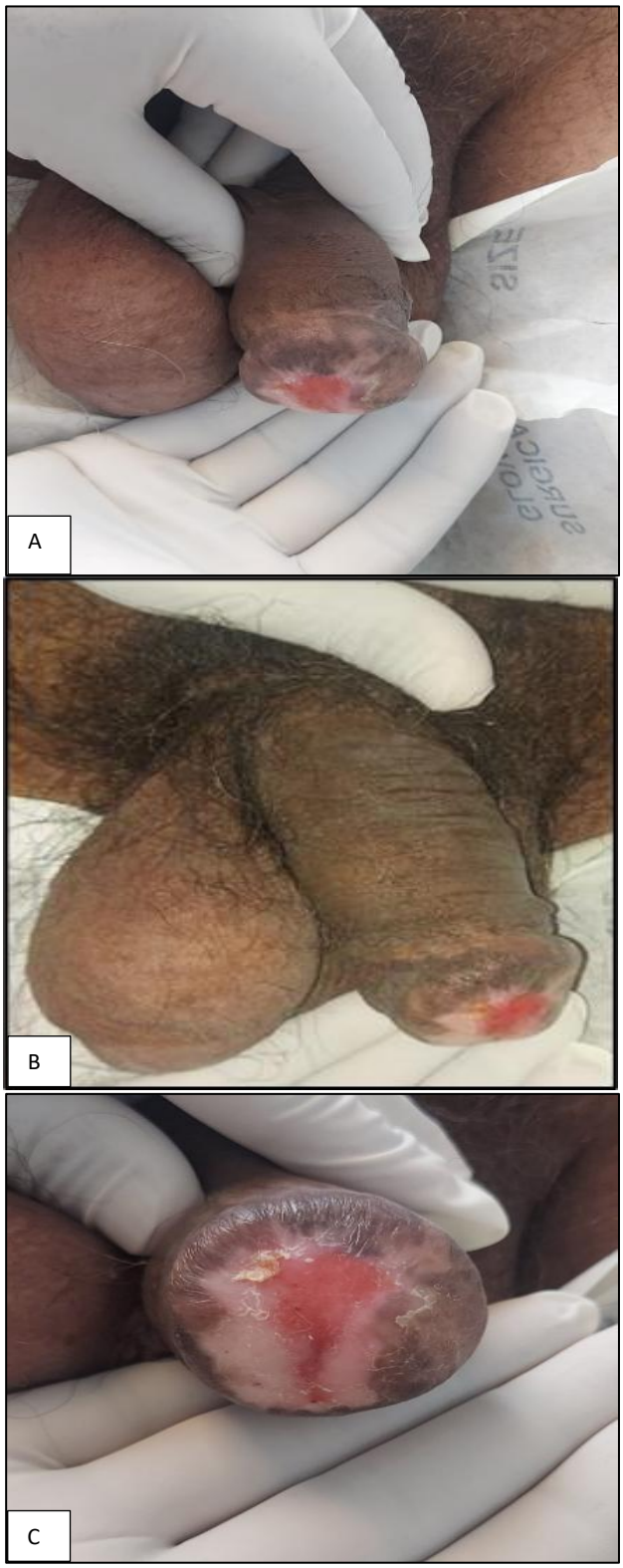

Figure 1 (A-C): Erythematous plaque around the urethral orifice surrounded by hypopigmented scaly plaques involving the glans penis, with a narrow pinpoint urethral orifice. Partial remission following topical 5% 5 FU.

DISCUSSION

PEKMB is a rare non-venereal dermatosis in males, first described by Lortat Jacob and Civatte in 1961.[1,2] Read and Abell reported that it may have a locally invasive or malignant potential. Although considered benign, chronic cases may progress to a malignant form, with Bart and Kopf suggesting an intermediate state between benign and malignant. In one study, conducted on 200 patients with genital lesions of all age groups from December 2016 to August 2018, only one case of PEKMB was reported.[3] The exact etiology remains unknown, although some case reports have identified HPV 81 by PCR. PEKMB typically affects individuals above 50 years of age. Circumcision may be considered a predisposing factor.[3,4] The pathogenesis of PEKMB occurs in four stages-initial plaque stage, late tumor stage, verrucous carcinoma, and transformation to SCC with invasion.[4] Lesions manifest on the glans penis as verrucous excrescences with scaling, often accompanied by ulcerations, cracking, and fissuring. The keratotic scale is typically micaceous, resembling psoriasis.

Histopathological examination reveals acanthosis, hyperkeratosis, and pseudoepitheliomatous hyperplasia. Complications include obstruction of the urethral meatus, painful erection, and transformation into malignant forms.[1-3]

Differential diagnoses include psoriasis, circinate balanitis, erythroplasia of Queyrat, lichen sclerosis, and rarely malignant epithelioma.[3-7] Hyperkeratotic plaques involving perimeatal skin may cause multiple urinary streams on micturition, resembling a watering can penis

Treatment options include topical steroids, 5%-5-fluorouracil cream (effective), and topical 5-aminolevulinic acid (ALA) PDT for thick scales obstructing the external urethral meatus. Shave biopsy with electrocoagulation may be considered if nail-like scales are present. For refractory cases, glans resurfacing and split skin graft reconstruction are options. Surgical treatments may include Mohs microsurgery, with post-treatment biopsies recommended.[8-10]

In 2019, a case reported condom occlusion therapy to enhance drug absorption for non-infectious penile dermatoses, particularly for PEKMB gave better outcomes for those who are not willing for surgical treatment.[10] Other treatment options include cryotherapy and radiotherapy. This case report highlights the rarity of PEKMB and emphasizes the importance of early diagnosis and long-term follow-up.

CONCLUSION

PEKMB is a rare dermatological condition that can mimic malignancy. Early diagnosis and appropriate management are crucial to prevent complications. This case highlights the importance of considering PEKMB in

the differential diagnosis of long standing genital lesions not responding to topical agents and underscores the need for long-term follow-up.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Subudhi CL, Singh PC. Pseudoepitheliomatous, keratotic, and micaceous balanitis produce nail-like lesions on the glans penis. Indian J Dermatol Venereol Leprol. 1999;65:75.
2. Vethanayagam M, Rajesh R. Pseudoepitheliomatous keratotic and micaceous balanitis-a rare case. J Evolution Med Dental Sci. 2013;2(46):8972-5.
3. Shabbir M, Bunker C, Muneer A. Premalignant lesions of the penis, Textbook of Penile Cancer. 2016;115-31.
4. Shabbir M, Minhas S, Muneer A. Diagnosis and management of premalignant penile lesions. Therapeutic Adv Urol. 2011;3(3):151-8.
5. Das S, Ghoshal L. Pseudoepitheliomatous keratotic and micaceous balanitis of Civatte. Indian Dermatol Online J. 2015;5(2):148-50.
6. Adya KA, Palit A, Inamadar AC. Pseudoepitheliomatous keratotic and micaceous balanitis. Indian J Sexually Transmitted Dis AIDS. 2013;34(2):123-5.
7. Subhadarshani S, Gupta V, Sarangi J, Agarwal S, Verma KK. Pseudoepitheliomatous, Keratotic, and Micaceous Balanitis. Dermatol Practical Conceptual. 2020;10(1):10.
8. Spencer A, Watchorn RE, Kravvas G, Ben-Salha I, Haider A, Francis N, et al. Pseudoepitheliomatous keratotic and micaceous balanitis: A series of eight cases. J Europ Academy Dermatol Venereol. 2022;36(10):1851-6.
9. Zhu H, Jiang Y, Watts M, Kong F. Treatment of pseudoepitheliomatous, keratotic, and micaceous balanitis with topical photodynamic therapy. Int J Dermatol. 2015;54(2):24547.
10. Gupta S, Jangra RS, Gupta SS, Gujrathi AV, Gupta S. A novel method to enhance efficacy of topical drugs by condom occlusion in penile dermatoses. Postgraduate Med J. 2020;96(1135):305.

Cite this article as: Damodaran D, Rajagopalan R, Vethanayagam M, Kandhasamy R. Pseudoepitheliomatous keratotic and micaceous balanitis: a rare interesting case report. Int J Res Dermatol 2025;11:61-3.