

## CASE REPORT

# Genital porokeratosis: a case report of an unusual clinical presentation and review

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### ABSTRACT

This is a case of a 34 years old male patient who presented with 6 months history of asymptomatic annular lesions on his scrotum. He was diagnosed with scrotal porokeratosis, which is a disorder that effect keratinisation of the epidermis. Multiple variant of porokeratosis exist clinically but genital presentation is rare and can be misdiagnosed easily with sexually transmitted diseases. There are limited number of cases of porokeratosis reported in genitals which make this good case for clinician for better diagnose and management in their practice. Genital porokeratosis is a rare presentation but it should be included in the differential diagnose of any genital lesion due to the risk of malignancy.

### INTRODUCTION

Porokeratosis is a disorder of the keratinization characterised by atrophic macule surrounded by hyperkeratotic border. The recognised variant of the condition include classic porokeratosis of Mibelli, disseminated superficial (actinic) porokeratosis, linear porokeratosis, punctate porokeratosis, and porokeratosis palmaris et plantaris disseminata.<sup>1</sup> Although these variants can present different clinically, they all share the histological feature of cornoid lamella. Genital porokeratosis is a rare presentation but it should be included in the differential diagnosis of any genital lesion due to the risk of malignancy.

### CASE REPORT

A 34 years old Egyptian married male, presented with 4 years history of asymptomatic annular lesions on his scrotum (Fig. 1). The dermatological examination revealed four annular, brown, 1 cm diameter plaques with

firm raised thready borders having a groove, on his scrotum. Other parts of the genital area were spared. Patient did not report any symptoms locally or systematically and his concern was only the appearance but when asked specifically regarding pruritus he reported occasional itchiness in the area. He denied history of any pre or extramarital exposure. The patient had been treated with topical steroid and anti fungal creams with no relief.



**Fig. 1** Annular, brownish, plaque with firm raised thready border on scrotum.

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His general physical and systemic examination were normal. His routine baseline investigations including CBC, LFT, RFT, fasting blood sugar levels, urinalysis were normal. Serology for HBV, HCV, and HIV were negative. VDRL was non-reactive and TPHA was negative. There was no inguinal, regional or generalised lymphadenopathy.

Clinically the differential diagnosis of the lesion was porokeratosis, plaque psoriasis and eczema. Biopsy from edge of one of the lesions was done to confirm the diagnose which showed hyperkeratosis, hypergranulosis, acanthosis, anastomosing rete ridges with increased melanin pigmentation at basal cell layer, parakeratotic column (cornoid lamellae) with hypogranulosis beneath it in addition to dyskeratotic cells within the epidermis. These finding were consistent with the diagnose of Porokeratosis.

The patient was treated with topical application of retinoid cream at bedtime along with application of emollient creams in the day time with minimal response. He is now scheduled for surgical removal of the lesions.

## DISCUSSION

Porokeratosis is a diagnose with wide spectrum of presentations. It can present with single or multiple lesions characterised by annular plaque surrounded by rigid elevated border. It usually appears in young age patients but it can appear at any age. On histopathology examination they all share the presence of cornoid lamellae.

Genital porokeratosis seems to be a distinct entity of the disease and it rarely manifest in this part of the body. There are limited cases in the literature reported.<sup>2</sup> It can involve different

parts in the genital region, penis, scrotum, buttocks and sometimes upper part of the thighs. Most of the cases reported in the literature are young males. This may reflect a genetical component of the disease process.<sup>3</sup> Also, the nature of work of our patient which make him work outside in the hot weather of Kuwait, may also suggest friction and humidity as cause, this finding was also suggested by another case report.<sup>4</sup> Sexual transmitted diseases as differential diagnosis was considered in this patient but the tests were negative and no single cause could be identified in our case or other case reports.

The differential diagnose of Genital porokeratosis includes eczema, plaque psoriasis, bowens disease, viral warts, lichen sclerosis and granuloma annulare. In general we suggest including porokeratosis in the physicians differential diagnosis for any genital lesion due to the risk of malignancy.

Malignant changes in porokeratosis has been reported in around 7-12% of the cases.<sup>2</sup> But regarding Genital presentation there is no reported cases in the literature about developing malignancy in that area. Even though, risk of malignancy of these lesion has to be considered due to lack of data. Long term follow up should be offered due to this risk.

Regarding treatment of genital porokeratosis our patient responded poorly with topical retinoid creams and emollients. He was followed up regularly after the confirmation of the diagnose without any improvement.

Looking at other cases reported there was no single treatment which did shows efficacy other than limited number of patients which showed total remission with surgical excision

with no recurrence in 5 years time and surgical treatment were suggested when its possible as best treatment. other treatment were also suggested as laser and cryotherapy but only when surgery is not possible.<sup>5</sup>

## CONCLUSION

Genital porokeratosis is a rare diagnosis. It should be considered in any genital lesion due to risk of malignancy. It is usually diagnosed histopathologically by the presence of cornoid lamellae. Definite treatment options is surgical excision. Long term follow up should be offered to make sure remission is maintained.

## REFERENCES

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