



Balanitis Xerotica Obliterans Presenting as a Chronic Itchy Penile Rash

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Introduction

- Balanitis xerotica obliterans (BXO) is a chronic, progressive, inflammatory dermatitis with a relapsing-remitting course.
- The etiology of BXO is multifactorial but is associated with lack of or late circumcision, genetics, hormonal factors, autoimmune disease, and possibly human papillomavirus.¹
- The incidence of BXO is estimated to be 0.07%² but is likely underreported. BXO manifests in children and adults, with the highest incidence in the third decade². Additionally, the incidence of BXO is greater in black and Hispanic populations².

Case Presentation

- A 60 y.o. male presented for a chronic rash on the penis. The rash had been there for a few years and was slowly spreading. It was associated with significant pruritus and discomfort during intercourse. He denied pain and difficulty with urination. He did not use any topical medications on the area. The patient was circumcised at birth but had no history of other surgical procedures involving the penis.
- Inspection revealed hypopigmented plaques with thickened areas of scarring on the glans and shaft of the penis (Figures 1-2). The diagnosis of balanitis xerotica obliterans, also known as lichen sclerosis of the male genitalia, was confirmed by punch biopsy.
- Following diagnosis, the patient was treated with clobetasol 0.05% ointment nightly for one month and then subsequent gradual taper down to twice weekly application.

Figures



Figures 1, 2: White sclerotic plaques on the (1) glans and (2) shaft of the penis. Biopsy site is marked with black ink dot.

Discussion

- Clinical features of BXO vary with severity. Hypopigmentation and erythema on the glans or foreskin with or without pruritus or burning is common in mild BXO. White plaques may spread as the disease progresses, with possible development of vesicles and erosion during sexual activity. Severe disease is associated with progressive fibrosis and phimosis.
- Although the diagnosis of BXO can often be made clinically, it should be confirmed by skin biopsy.
- **Prompt and accurate diagnosis of BXO is critical for monitoring for potential sequela, including the risk of developing a squamous cell carcinoma within the affected areas.**² This may arise secondary to chronic inflammation and scarring.
- The risk of malignancy in patients with BXO is thought to be underestimated but has been quantified in several studies as 2-5.8%.^{3,4}
- **Other adverse outcomes associated with BXO include painful erection, urethral stenosis, and urinary retention.**
- Superpotent topical steroid therapy can provide symptomatic relief in BXO. **With early intervention topical steroids can reduce disease progression.**⁵
- Circumcision is recommended in patients who are uncircumcised to prevent disease progression when BXO is restricted to the foreskin.⁶
- Regardless of selected treatment modality, patients should be routinely monitored for malignancy and other sequelae and referred to a dermatologist or urologist accordingly.

Conclusion

It is important for clinicians to be able to recognize BXO as early diagnosis, early intervention, and routine monitoring are critical in mitigating its potential sequela.

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