

## Balanitis Xerotica Oblitans Bxo-----Mimicking Vitiligo

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### Abstract:

**Balanitis Xerotica Oblitans** is a chronic often progressive disease which can lead to phimosis and urethral stenosis affecting both urinary and sexual function. Steroid creams are usually the first line of treatment but have a limited role and surgical intervention is frequently necessary. Conservative surgical procedures (circumcision) are often preferred in the first instance with the premise that the recurrence of the disease will require a more definitive reconstruction. 5 cases of male patients aged 20-45 were reported with the complaints of presence of non pruritic white spots on preputial skin and narrowing of preputial orifice with inability to retract. Local examination revealed ivory white atrophic macules of 2-10 mm of diameter involving the skin of prepuce near its opening. Prepuce could not be retracted and portion of the glans was not visible. LSA lesions were not present on other parts of the body. Diagnosis was confirmed by biopsy. Circumcision was done for all the patients and all improved symptomatically. Any patient presenting with white spots on the genitalia an eye should be kept to rule out BXO apart from mucosal vitiligo because BXO can be managed with proper treatment.

**Keywords:** BXO, Lichen sclerosis, White spot disease, Circumcision.

### I. Introduction

BXO is a chronic often progressive disease thereby leading to phimosis and urethral stenosis affecting both urinary and sexual function<sup>1</sup>. Lichen sclerosis in the genital area was first described in women by Breisky as kraurosis vulva<sup>2</sup>. 40 yrs later lichen sclerosis of glans penis was described by Stumher as Balanitis xerotica oblitans<sup>3</sup>. BXO is an unknown disease of unknown etiology in which characteristically easily recognised small white sclerotic areas occur at any site on the skin. This frequently involves perineal skin in female and glans penis and fore skin in the males<sup>4</sup>. It may occur in genital or non genital areas. Penile childhood lichen sclerosis who have propensity for HPV 6, 16, 18 progress to Squamous cell carcinoma specifically in uncircumcised male children. Genital lichen sclerosis is more common than extragenital or oral disease<sup>5,6,7</sup>. Prothitis xerotica oblitans refers to the chronic damage to the prepuce by lichen sclerosis. BXO refers to the involvement of glans penis. BXO can be consequence of other scarring dermatosis such as lichen planus, cicatricial pemphigoid<sup>8</sup>. Perianal disease is 10 times more common in women than men.

### II. Materials And Methods

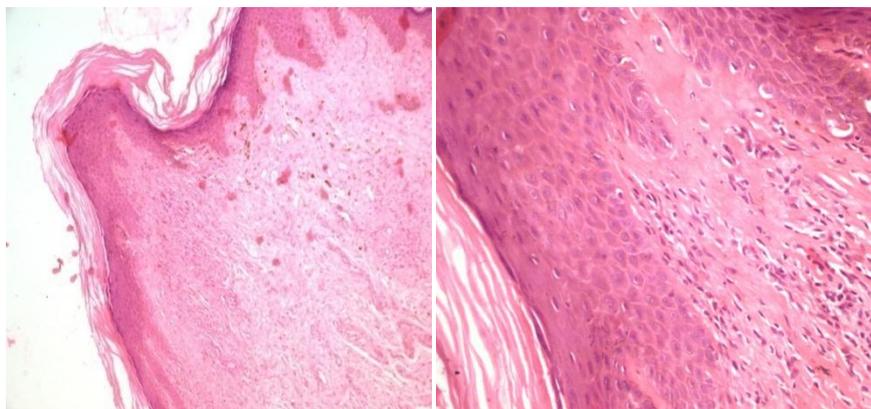
5 Male patients of BXO aged between 20-45 yrs were selected in the department of DVL Osmania General Hospital between 2011-2014. These patients presented to the department of DVL with white patches on prepuce with difficulty in retracting the prepuce.

Local examination revealed atrophic white macules of 2-5mm in diameter involving the skin of prepuce near its opening. Prepuce could not be retracted. LSA lesions were not present on the other parts of the body.



Fig :1. White patch with Phimosis

Vitiligo and BXO were considered as differential diagnosis. Such patients were screened for HbsAg, VDRL, HIV, along with routine investigations which were found to be NON-REACTIVE and NORMAL respectively. All the patients were subjected for biopsy which showed hyperkeratosis of epidermis and hydropic degeneration of basal layer. Edema and hyalinization of collagen below the epidermis and band like inflammatory infiltrate was seen below the epidermis and in the lower Dermis.



**Fig: 2,3.** H&E staining of biopsy specimen

**Procedure :**

Circumcision was done for all these cases and all the cases showed symptomatic improvement. Circumcision is often performed by dermatologists for phimosis, paraphimosis chronic balanoposthitis, Erythroplakia of the glans etc. Three common techniques of performing circumcision are 1) Guided forceps 2) Dorsal split 3) Sleeve resection technique<sup>9</sup>. Under aseptic precautions we adopted guided forceps technique of circumcision.



**Fig: 4.** 1 week after circumcision

**Treatment:**

Guidelines for the management of Lichen sclerosus have been published by British association of dermatologists<sup>10</sup>.

Contact with soap and urine must be avoided. A very potent topical steroid usually clobetasol propionate under supervision is effective. The plasticity of the epithelium at this site seems to allow and significant remodeling with the release of phimosis. Topical clobetasol propionate has been shown to relieve undifferentiated phimosis in many boys so obviate the need for circumcision<sup>11</sup>.

Testosterone propionate ointment, oral stanazolol, freezing with ethyl chloride, liquid nitrogen cryo therapy, CO<sub>2</sub> Laser and adreno corticotropin hormone (ACTH) have been used but not recommended. If medical treatment is not possible or fails than surgery may be indicated. Circumcision, frenuloplasty, meatotomy and sophisticated plastic repair depending upon the clinical presentation can be offered. About 40%

of patients will respond to medical treatment. Majority of the remainder will be cured by surgery, usually circumcision<sup>12</sup>. Persistent disease requires individualized follow-up and management with the topical steroids. All the patients improved symptomatically.’

### **III. Discussion**

BXO is a dermatological condition affecting male genitalia. BXO commonly occurs on foreskin and glans penis. Atrophic white patches occur over the affected area commonly a whitish ring of indurated tissue usually forms near the tip that may prevent retraction. Steroid creams are frequently the first line of treatment but have a limited role and surgical intervention is frequently necessary. Conservative surgical procedures (circumcision) are often performed in the first instance with the premise that recurrence of disease will require a more definitive reconstruction<sup>13,14</sup>.

### **IV. Conclusion**

Any patient presenting with white spots on preputial skin apart from vitiligo, BXO has to be considered as differential diagnosis. As the former (vitiligo) is difficult to treat where as circumcision is curative treatment of the latter. This shows the importance of early detection of unresolved and progressive BXO cases. Steroid creams have been shown to limit the progression of the disease but do not offer cure in the majority of the cases. Progression of the BXO disease gets arrested following circumcision by removing urine rich environment and patient with meatal or urethral disease are most likely to require excision and or reconstruction for long lasting cure.

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