



# BALANITIS XEROTICA OBLITERANS– A CASE REPORT

**K Prashanth<sup>1</sup> \*B Prashanth<sup>2</sup>**

<sup>1</sup>Guide, Asso.Prof., Dept. Of PG Studies in Shalya Tantra, Shri Dharmasthala Manjunatheshwara College of Ayurveda, Udupi

<sup>2</sup>Corresponding Author - PG Scholar, Dept. of PG studies in Shalya Tantra, Shri Dharmasthala Manjunatheshwara college of Ayurveda, Udupi

Email ID – [baginoorp@gmail.com](mailto:baginoorp@gmail.com)

Phone number-8861380212.

## ABSTRACT

Balanitis xerotica obliterans (BXO) is a rare surgical ailment of male genital variant Lichen Sclerosis. Lichen sclerosis is a severe, chronic dermatosis characterized by inflammatory, sclerotic, pruritic lesions that causes significant morbidity in patients of all genders and ages. In males the lesions typically affect the foreskin and Glans termed as BXO, leading to phimosis and meatal stenosis. An Ayurvedic diagnosis of *Kilasa* was made that has resulted in *Niruddha Prakasha* causing urinary flow obstruction. A 26-year-old male patient presented with BXO underwent circumcision procedure and was followed up for 6 months.

**KEY WORDS**-BXO, *Nirrudhaprakasha*, *kilasa*, Lichen sclerosis, Circumcision.

## INTRODUCTION

Balanitis xerotica obliterans (BXO) is an uncommon surgical skin condition of the male genitalia involving the foreskin and glans penis<sup>1</sup>. The true prevalence rate of BXO is 0.6% affected by their 15<sup>th</sup> birthday<sup>2</sup>. It is caused by genetic and autoimmune disorders, infection from HPV, spirochetes and atypical mycobacteria or consequence of nonspecific bacterial balanitis, posthitis or local trauma<sup>3</sup>. BXO is a common cause of pathological phimosis characterized by atrophic whitish cicatricial bands which prevents retraction, leading to pain, irritation and disturbance in sexual function<sup>4</sup>. In Later stages, a meatal stricture may occur, causing urinary retention and the proximal urinary diseases. Chronic irritation and inability in maintaining genital health may predispose to cancer<sup>5</sup>. Surgical management focuses on prevention of disease progression, includes preputioplasty for mildly scarred foreskin, for the rest of the presentation's circumcision is the most appropriate management. Application of topical steroid cream maybe helpful in conditions were Glans is affected. For acute retention of urine, for the purpose of catheterization, a dorsal slit under local anesthesia maybe performed. In meatal stenosis meatotomy is necessary<sup>5</sup>.

*Kilasa* is the variant of *Kushta* has a propensity to involve the genital skin<sup>6</sup>. *Nirrudhaprakasha* is the condition in which vitiated *vata* affects *shishna charma* (prepuce) by adhering it to glans, characterized by urinary obstruction, weak stream, present without pain and concealed glans. the condition also results by the complications seen in *Avapatika* (chronic balanoposthitis)<sup>7</sup>. *Acharya sushrutha* explained *Nirrudhaprakasha* under the group of *kshudra rogas* (minor diseases) were as *Vrudha Vagbhata* classified it in *Guhya rogas* (genital diseases)<sup>8</sup>.

*Acharya Sushrutha* explained about Excision procedure as the standard treatment measure and followed by management of *Sadyovrana*. In case of metal stenosis advised meatal dilatation and in *Nirrudhaprakasha* excision of prepuce.

## CASE HISTORY

A 26-year-old male patient was referred to the OPD of *Shalyatantra* at SDM Ayurveda Hospital Udupi with complaints of difficulty in micturition, ballooning of prepuce -since childhood aggravated in 2 weeks. patient noticed symptoms worsened in 2 weeks with prolonged duration of micturition. there was difficulty in retracting the foreskin beyond few millimeters from the external urinary meatus. History is not significant for pain, discharge, dysuria or any systemic illness.

## PHYSICAL EXAMINATION

### LOCAL EXAMINATION

Inspection		Palpation	
Preputial orifice	small and narrow	Temperature	not raised
Glans	multiple whitish cicatricial bands	Tenderness	Absent
Ulceration and discharge	Absent	Perpeutical skin	Minimally retractable
Swelling	Absent		
Discoloration	Hypopigmented whitish patch extending circumferentially about 1cm proximal from the preputial margin	Inguinal lymph nodes	not palpable

## SURGICAL INTERVENTION-

### PREOPERATIVE PROTOCOL:

Pre-operative blood and urine investigations were normal. Procedure was planned under penile ring block Local anesthesia with Lignocaine 1% and IV sedation with Inj. Fortwin and Inj. Midazolam.

**OPERATIVE PROCEDURE:**

Circumcision done with the classical 3 forceps method. Preputial orifice is widened with the artery forceps and dorsal slit done to open the preputial sac. Adhesions removed by blind dissection using forceps and gauze. excision of the preputial skin done 0.5cm form the corona. Frenal artery and dorsal vein ligated with 3/0 vicryl and minor bleeders coagulated with diathermy. Cut preputial edge sutured with 3/0 vicryl interrupted sutures with sofratulle tie around dressing.

**POST OPERATIVE MEASURES:**

Patient was advised oral fluids after 3hrs followed by normal diet. Post-operative period was uneventful. Orally patient was prescribed with *Kaishora guggulu ds 750mg tid*, *Gandhaka Rasayana ds 750mg -1tid*, *Panchatikta Kashaya 200ml – 4tsp tid* for 1week.

**AFTER 6 MONTHS OF TREATMENT:****Follow-up**

Sofra tulle dressing fell off on 8<sup>th</sup> day and suture line were healthy on 1<sup>st</sup>po follow up on 10<sup>th</sup> day. Patient was advised tab *Arogyavardhini rasa* 1tid, *Kaishora guggulu* 1tid and *Mahamanjishtadi Kashaya* 4tsf BD for further 2 months as preventive medications in view of Lichen sclerosus. No recurrence of Lichen sclerosus was noted during the 6 months follow up of the case.

**DISCUSSION**

*Acharya Sushruta* opines *Kilasa* as a variant of *Kushta* causing hypopigmentation, the disease may restrict to skin or may show tendency to involve the deeper *Dhatu*s. In this case patient presented with non-retractile prepuce and hypopigmented scarified skin lesion. there is no involvement of glans nor the meatus. the *Kilasa* which is confluent involved here is (*Raktaloma*) which was involved genitals (*Guhyasrita*). It may cause many complications depending upon structures involved. *Kilasa Kushta* one of the sites that are involved are on skin of the genitals. *Kilasa* affecting the preputial skin and extend to involve the glans and external meatus may

further involve urethra to cause urinary obstruction by either causing secondary phimosis and meatal stenosis (*Nirrudhaprakasha*) or urethral obstruction (*Mutraghata*). If the disease progressed to more than 1 year said as *Asadhya*. For the medical management by *Acharya Sushruta*, hence the surgical intervention with circumcision was planned. Although the literature hints the possibility of recurrence or extension of disease, post-surgery the risk was relatively less in this patient as only distal part of the preputial skin was involved and no glans nor meatus involved.

## CONCLUSION

Lichen sclerosis is a chronic condition that may progress to cause significant voiding complications like BXO<sup>9</sup>. The surgical management of Balanitis Xerotica Obliterans is identical to *Acharya Sushruta's* management of *Nirrudhaprakasha*. Circumcision has shown a protective effect against UTI. post-surgical management in the lines of *Kushta chikitsa* may prevent recurrence of this disease<sup>10</sup>.

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