

SURGICAL MANAGEMENT OF BALANITIS XEROTICA OBLITERANS IN ENGLAND: A TEN YEAR REVIEW OF PRACTICES AND OUTCOMES

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Aim: Circumcision has long been the mainstay of management for Balanitis Xerotica Obliterans (BXO), however there has been growing interest in surgical techniques that preserve the foreskin. The aim of this study was to:

1. Assess population based surgical management of BXO in England
2. Determine outcomes for patients undergoing surgery for BXO.

Method: All cases of BXO treated in English NHS trusts (2002-2011) were extracted from the Hospital Episode Statistics (HES) Database. Cases were identified by both an ICD-10 code for BXO and either an OPCS 4.6 code for circumcision or preputioplasty (with/without injection of steroid). All subsequent admissions were analysed for related complications/procedures. Exclusion criteria included patients with hypospadias/epispadias, patients residing outside of England and those treated in centres performing fewer than 5 operations/10 years. Data are presented as Median(Interquartile range) unless otherwise stated.

Results: 7893 patients required surgical management for BXO of which 7567(95.8%) underwent circumcision. Primary preputioplasty was performed in 326(4.1%) in 44/130 centres, of these only 175/326 had concomitant injection of steroid. Age at surgical intervention was 9(6-11) years, 7509(95.1%) of cases were managed electively and 4261(54%) were treated at tertiary paediatric surgical centres.

There were no postoperative bleeds following preputioplasty and future meatal surgery rates were lower, however this did not reach significance (Table1). 71(0.9%) of circumcisions required revision, while 7(2.1%) primary preputioplasty underwent a repeat procedure.

In total 74(22%) patients treated with preputioplasty subsequently went on to circumcision at a median of 677(277-1203) days post op. Concomitant steroid injection reduced the risk of subsequent circumcision (21/151(14%) vs 53/175(30%), $p < 0.001\ddagger$).

Conclusions: Although circumcision is the predominant treatment for BXO this data suggests that preputioplasty has equivalent outcomes. Selection bias may play a role and a randomized controlled trial is needed. Preputioplasty combined with steroid injection appears to reduce the chance of completion circumcision.

	Infection*	Post-operative Bleeding*	Further Meatal Intervention	Further Urethral Intervention
Circumcisions (n=7567)	48 (0.6%)	61 (0.8%)	421 (5.6%)	129 (1.7%)
Preputioplasties (n=326)	1 (0.3%)	0	10 (3.1%)	8 (5.7%)
p-value	0.723 [†]	0.182 [†]	0.052 [‡]	0.205 [‡]

* ≤30 days post op.

† assessed using Fisher's Exact Test

‡ assessed using Chi Squared Test

TABLE 1. Outcomes of surgical therapies for BXO 2002-2011.