

# Early Buccal Mucosal Graft (BMG) Urethroplasty after surgical drainage of perineal abscess

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## Introduction

Bulbar urethral stricture is an uncommon cause of perineal abscesses. Traditionally, urethral strictures that have been complicated by perineal abscesses require a delayed urethral repair 3-months post drainage surgery to allow full recovery of the surgical site. In this case report, we present the outcomes of 2 cases of bulbar urethral stricture for which early urethroplasty had been performed after recent drainage of perineal abscesses.

## Methods

Both patients presented similarly with recurrent perineal abscesses secondary to bulbar urethral strictures. Following initial endoscopic treatment of urethral stricture and drainage of perineal abscess, both patients defaulted subsequent outpatient follow up. Thus, during their most recent admissions for perineal sepsis, we proceeded with early buccal mucosal graft (BMG) urethroplasty<sup>1</sup> with secondary closure within 11 days of incision and drainage.

## Case 1

53 year old gentleman who had previous periurethral abscess with bulbar stricture in 2013 which was surgically drained. Initial presentation to us happened in July 2019 with a perineal abscess and bulbar urethral stricture which was treated with surgical drainage. Subsequently an ascending urethrogram was performed which revealed the known stricture and a mid-bulbar fistula but patient defaulted subsequent follow-ups.



Picture 1-2: Urethrogram demonstrating both bulbar stricture with mid-bulbar fistula

He re-presented in January 2020 with scrotal pain secondary to a right sided 2cm perineal abscess. Treatment was via appropriate intravenous antibiotics and surgical drainage. He was monitored closely in the ward and noted to have good clinical and biochemical improvement. Excision of the offending fistula and buccal mucosal graft urethroplasty was performed 5 days after the initial drainage. He recovered uneventfully and was discharged on POD6 of BMG urethroplasty.



Picture 3. Intraop Urethrogram

Picture 4. Intraop Cystoscopy demonstrating fistula

Picture 5. Post-op urethrogram

## Case 2

59 year old gentleman who had previous bladder calculus and underwent cystolithotripsy in 1998. He was initially diagnosed with scrotal abscess and a bulbar urethral stricture in 2019 in another local hospital. He defaulted follow up and subsequently represented to us in September 2020 with a left scrotal abscess. Appropriate antibiotic therapy was commenced and surgical drainage performed.



Picture 6



Picture 7

Picture 6: Intra-op cystoscopy showing sinus tract at 6 o'clock

Picture 7: Shows depth of abscess cavity extending to bulbar urethra

Intraoperatively abscess cavity extended to the bulbar urethra with granulation tissue seen over it. Similar to case 1, good clinical and biochemical improvement was noted post-operatively. Thus, buccal mucosal graft urethroplasty was performed 11 days after the initial drainage. He recovered uneventfully and was discharged on POD7 of urethroplasty.



Picture 8



Picture 9

Picture 8: Intra-op urethrogram revealing stricture and fistula

Picture 9: Post-op urethrogram demonstrating good healing

## Results

Both patients recovered with good healing of the perineal wound at 3 weeks follow up. We are pleased to report that there was no recurrence of urethral stricture, fistula, or perineal infections more than 1 year after surgery. The patients also did not complain of spraying of urine, bothersome dribbling, or diminished erectile function<sup>2</sup>.

### Conditions that may favour good outcome

1. Hemodynamically stable patients
2. Biochemically stable (e.g downtrend of inflammatory markers)
3. Good early healing of abscess cavity with granulation tissue
4. Absence of complex anatomical abnormalities such as multiple fistulas

## Conclusion

Early buccal mucosal graft urethroplasty can be performed in certain scenarios and be able to yield good outcomes.

### REFERENCES

1. Zimmerman, W. B., & Santucci, R. A. (2011). Buccal mucosa urethroplasty for adult urethral strictures. Indian journal of urology : IJU : journal of the Urological Society of India, 27(3), 364–370. <https://doi.org/10.4103/0970-1591.85441>
2. Barbagli G, Palminteri E, Guazzoni G, Montorsi F, Turini D, Lazzeri M. Bulbar urethroplasty using buccal mucosa grafts placed on the ventral, dorsal or lateral surface of the urethra: Are results affected by the surgical technique? J Urol. 2005;174:955–7

3 weeks post-operatively, a peri-catheter urethrogram was performed prior to review. Good healing of perineal wound and radiological evidence of healing at the site of urethroplasty was seen during clinic visit.