

Moderated Poster Session 4: Female Urology, Pediatrics, Trauma, General Urology

MP4-08

Testicular Transposition Trends Towards Decreasing Length of Stay in Fournier's Gangrene

J. Barnard¹, J. Patterson², A. Luchey, P. Bonasso
West Virginia University¹; West Virginia University School of Medicine²

Introduction: Fournier's Gangrene (FG) is a rapidly progressive necrotizing infection of the genitalia. Despite aggressive treatment, mortality rates are reported to be as high as 67%. Much of the morbidity is incurred during the initial hospital stay after the initial debridement. Transposition of testicles into subcutaneous thigh pouches with local skin advancement is one strategy by which soft tissue defects can be repaired. The present study sought to analyze the effect of testicular transposition on length of stay and rate of complications in FG patients.

Materials & Methods: Retrospective chart review was undertaken to identify FG patients from 2009 to 2012. Abstracted data included age, sex, length of stay, BMI, mortality, tobacco and alcohol use. Comorbidities were classified based on organ system. Length of stay and complications were compared across reconstruction types (Table 1). Data were analyzed using non-paired, two tailed t-test with significance $p < 0.05$.

Results: 31 male patients were identified with FG of which 20 met inclusion criteria. Patient comorbidities associated with FG included diabetes (70%), hypertension (70%), and smoking (55%). An average of 2.9 debridements were required for each patient and 80% had removal of scrotal skin. Orchiectomy was required in 15% of patients. Average time to reconstruction was 16.65 days from initial debridement. 45% of patients underwent transposition of one or more testicles with 55% also receiving local skin advancement. Skin grafting was required in 40% of patients. Testicular transposition trended towards a decreased length of stay relative to other reconstructive methods (18.82 vs. 28.78 days $p = 0.09$). Mortality was 10% for our study. Postoperative complications did not vary significantly based on type of reconstruction (Table 1).

Conclusions: Our findings validate the diagnosis of Fournier's gangrene as a challenging clinical paradigm requiring multidisciplinary care and often protracted hospital stays with significant morbidity. The majority of our patients were obese, diabetic, smokers with hypertension and advanced age. Further investigation through larger volume studies may validate testicular transposition with local skin advancement as the optimal reconstructive strategy to decrease length of stay in FG patients.

Reconstruction Type	Number of Patients	Average Length of Stay	Immediate post-op complications	Post Discharge complications	Clavien-Dindo I	Clavien-Dindo II	Clavien-Dindo III	Clavien-Dindo IV	Clavien-Dindo V
Pedicle Flap	4	47.25	4	4	4		3	1	
Advancement flap	11	24.1	3	5	4	1	2		1
Advancement flap without testicular transposition	5	30	2	2			2		
Skin graft	8	29.43	2	3	1	1	2		1
Skin graft without testicular transposition	5	30.2	1	1			1		
Testicular transposition into thigh	9	18.29	2	5	4	1	1		2
Reconstruction of 1 testicle	7	19.67	2	4	3	1	1		1
Reconstruction of both testicles	2	10		1	1				1
Testicular reconstruction and skin graft	2	27.5	1	2	1	1	1		
Testicular reconstruction and local skin advancement	6	18.2	1	3	3	1			1

MP4-09

Effect of Body Mass Index on Recurrence Following Urethroplasty

J. Mills¹, D. Rapp¹, L. Smith-Harrison², R. Smith³, C. Pike¹, R. Costabile³
Department of Urology, University of Virginia¹; Department of Urology, Medical College of Wisconsin²; University of Virginia³

Introduction: In the treatment of urethral strictures, urethroplasty has been demonstrated to be an effective, durable, and cost-effective surgical option. Limited investigation exists to understand whether obesity is an independent risk factor for urethroplasty failure. We sought to assess whether BMI is an independent predictor for stricture recurrence following urethroplasty.

Materials & Methods: We performed a retrospective review of patients undergoing urethroplasty between 2007 and 2014, identifying 137 patients for study inclusion. Data collected included body mass index (BMI), patient demographics, and surgical characteristics including age, stricture length and location, etiology, and urethroplasty technique. Logistic regression was performed to assess predictors for stricture recurrence using both univariate and multivariate models.

Results: Mean patient age and follow-up was 47 years (± 16.4) and 92 months (± 30.5), respectively. A recurrence rate of 17% was identified, with a mean time to recurrence of 29 months. There was no difference when comparing the mean BMI in patients with and without recurrence (28.9 vs. 30.4 kg/m², respectively) ($p = 0.40$). A higher rate of stricture recurrence was seen when comparing the cohort with a BMI < 25 versus remaining cohorts (BMI 25-30; BMI > 30). However, in univariate and multivariate analysis, BMI failed to demonstrate statistical significance as a predictor for urethroplasty outcome (Table 1). On multivariate analysis, fasciocutaneous repair type was predictive of stricture recurrence. No additional potential predictors assessed were found to be significant.

Conclusions: In the present study, BMI did not independently predict stricture recurrence following urethroplasty.

Table 1. Potential Predictors for Stricture Recurrence, Multivariate Analysis

	OR (95% CI)	p value
Age	1.02 (0.99-1.07)	.22
BMI	1.00 (0.92-1.09)	.93
Stricture length	0.75 (0.55-0.98)	.06
Stricture location		
posterior	2.77 (0.35-24.10)	.33
combined	2.49 (0.22-24.20)	.44
Etiology		
idiopathic	0.31 (0.02-8.61)	.49
iatrogenic	0.12 (0.02-10.32)	.41
trauma	0.13 (0.004-4.97)	.23
hypospadias	3.50 (0.14-142.30)	.46
Repair type		
EPA	0.59 (0.13-2.64)	.49
FC	0.07 (0.002-0.62)	.047

OR, odd ratio; CI, confidence interval; BMI, body mass index; EPA, excision and primary anastomosis; FC, fasciocutaneous