

# MP78-16: Probability of surgical management of low-flow priapism based on etiology

Ethan L. Matz, Rahul Dutta, William Anderson, Tyler Overholt, Kyle Scarberry, Ryan Terlecki  
Wake Forest Baptist Medical Center Winston-Salem, NC

# Surgery and priapism

- Objective

- Characterize the etiology and management of priapism

- Methods

- January of 2011 through December 2018
- Details were extracted relative to demographics and event details.
- For patients with recurrent encounters for priapism, the most recent episode was examined.

- Results

- 110 men were included for analysis.
- Median duration of priapism prior to emergency department (ED) presentation was 10 hours (1.5-196).
- ICI cases presented to the ED significantly sooner than those deemed idiopathic (mean 13 vs 52 hours,  $p = 0.0003$ ) or those due to trazodone (mean 25 vs 50 hours,  $p = 0.0176$ ).
- Likelihood of undergoing shunt surgery was highest among cases due to psychotropic medication (59%), followed by trazodone (44%), idiopathic (38%), and ICI (8%).
- When compared directly to ICI, the odds of shunting were significantly higher for idiopathic (OR 7.6 CI 1.35, 42.89  $p=0.02$ ) or trazodone-related cases (OR 9.6 CI 1.72, 53.4  $p=0.0098$ ).
- ROC analysis yielded a sensitivity of 1 and specificity of 0.9231 for requiring distal shunt using 20 hours to presentation as a cutoff (AUC=0.9904,  $p<0.0001$ ).

# Results

Etiology	N (%)	Mean age (years)	Race*		Mean time to ER (hours)	Shunt required?
			Black	White		
Intracavernosal Injection	26 (24%)	54.2	17%	31%	13.0	8%
Idiopathic	22 (20%)	42.0	21%	15%	45.4	36%
Trazodone	18 (16%)	38.9	13%	21%	24.8	44%
Psychotropic Medication (except trazodone)	17 (15%)	37.6	15%	19%	35.4	59%
Sickle-cell disease	12 (11%)	20.6	23%	0%	8.3	0%
Cocaine Use	5 (5%)	43.4	2%	6%	23.6	40%
Sickle-cell trait	4 (4%)	24.9	6%	2%	8.3	25%
Oral ED Treatment	4 (4%)	54.5	4%	2%	19.1	25%
Testosterone replacement	2 (2%)	40.4	0%	4%	25.5	50%

**Table 1:** Details of patient presentation to emergency room (ER)

Final Treatment	N (%)	Mean time to ER (hours)
Irrigation + phenylephrine	56 (51%)	8.7
Shunt	33 (30%)	63.7
Spontaneous resolution	15 (14%)	8.8
Irrigation alone	4 (4%)	8.5
Irrigation + epinephrine	2 (2%)	5.3

**Table 2:** Final treatment required and relationship to presentation time