

Introduction

- UTI is reported to be the leading cause of morbidity in SCI patients.
- Some 20% of SCI patients will have issues with recurrent UTIs.
- We sought to assess risk factors for recurrent UTI (rUTI), defined as ≥ 3 /year.

Methods

- Single institution, retrospective review.
- Included only SCI patients using CIC and who had VUDS available, between 2007-17.
- All patients also had urine culture information available to confirm UTIs.
- Obtained all data from their initial work up with Urology.
- VUDS performed using ICS standards.
- Those without rUTI served as control.

		Recurrent UTIs n=30	Control n=94	P value
Age	Mean	34.0	38.4	0.142
Sex	Female	23.3%	10.6%	0.123
	Male	76.7%	86.3%	
Race	Black	43.3%	22.3%	0.033
	Other	13.3%	8.5%	
	White	43.3%	69.1%	
SCI Level of Injury	Cervical	33.3%	34.0%	1.000
	Thoracic	60%	57.4%	
	Lumbosacral	6.7%	8.5%	
Years Since SCI	Mean	3.1	5.6	0.018

		Recurrent UTIs n=30	Control n=94	P value
DO Present	Yes	66.7%	72.3%	0.551
	No	33.3%	27.7%	
Volume at First DO	Median	225.0	275.0	0.287
Max Pdet during DO	Median	55.0	50.0	0.240
Capacity	Median	395.0	486.5	0.424
End Fill Pdet	Median	7.5	7.5	0.699
Compliance	Median	50.0	42.4	0.641

		Odds Ratio	P value
Sex	Male	Reference	0.011
	Female	4.96	
Race	White	Reference	0.002
	Black	5.16	
	Other	3.91	
Years Since SCI		0.91	0.036

Stepwise Logistic Regression Results

- On regression, race other than white and female gender were adjusted determinants of rUTI.
 - African Americans 5.16x more likely to have rUTI than white (p=0.002).
 - Females 4.96x more likely to have rUTI than males (p=0.011).
- Greater time since injury was protective.
 - Every year since injury 0.91x as likely to have rUTI (p=0.036).
- UDS variables were not significant risk factors.

Contingency Table Results

- Fisher's Exact Tests and Mann-Whitney U Tests were used to compare those with rUTI and those without:
 - African Americans comprised a greater proportion (43.3% vs 22.3%) of the rUTI group (p=0.033).
 - Mean time since injury was shorter (3.1 vs 5.6 years) for those with rUTI (p=0.018).
 - UDS variables were not significantly different between groups.

Conclusions

- Demographic factors such as race other than white and female gender are risk factors for rUTI in this population.
- Time since injury appears protective against rUTI.
- UDS variables are not significant risk factors for rUTI in SCI patients managed with CIC.

