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### Title

MP11-06 GENDER DISPARITIES IN FOURNIER'S GANGRENE MORTALITY: INSIGHTS FROM NATIONAL INPATIENT SAMPLE DATA

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two groups, with *Escherichia coli*, *Klebsiella pneumoniae*, and *Enterococcus* species being predominant in both.

**CONCLUSIONS:** Fournier's gangrene typically affects individuals aged 50 and older but can also occur in younger populations. In younger patients, a higher BMI is the primary risk factor for this condition. The most common predisposing factor, diabetes mellitus, does not significantly differ between the two age groups. Younger patients have shorter hospital stays and lower mortality rates compared to their older counterparts, and both age groups share similar bacterial strain profiles.

	All (n=105)		Age < 45 (n=27)		Age > 45 (n=78)		p value
	Mean/ N	SD/ %	Mean/ N	SD/ %	Mean/ N	SD/ %	
Mortality	13.0	13.3	0	0	13	13.3	<b>0.023</b>
Length of hospital stay	23.1	17.6	17.6	9.2	25.0	19.4	<b>0.011</b>
FGSI Score	5.8	4.0	4.6	4.2	6.3	3.9	0.057
BMI	27.7	7.6	30.2	9.4	26.8	6.6	<b>0.047</b>
Diabetes mellitus	57	54.3	13	48.1	44	56.4	0.458
Hypertension	44	41.9	2	7.4	42	53.8	<b>p&lt;0.001</b>
Hyperlipidemia	9	8.6	2	7.4	7	9.0	0.802
Cerebral vascular accident(CVA)	15	14.3	0	0.0	15	19.2	<b>0.014</b>
Coronary artery disease(CAD)	20	19.0	0	0.0	20	25.6	<b>0.003</b>
Liver cirrhosis	10	9.5	4	14.8	6	7.7	0.277
Chronic kidney disease(CKD)	16	15.2	2	7.4	14	17.9	0.189
Smoking	51	48.6	17	63.0	34	43.6	0.083
Lactate level	3.4	3.2	3.0	1.8	3.4	3.4	0.762
Blood culture(+)	16	15.2	2	7.4	14	17.9	0.189
Times of debridement	2.9	1.6	2.6	1.4	3.0	1.7	0.286
symptom-to-admission days >7	32	30.5	9	33.3	23	29.5	0.708
<i>Escherichia coli</i>			7	26%	26	33%	
<i>Klebsiella pneumoniae</i>			6	22%	24	31%	
<i>Enterococcus</i> species			5	19%	12	15%	
$\beta$ -Streptococcus			4	15%	5	6%	
<i>Staphylococcus lugdunensis</i>			3	11%	0	0%	
<i>Streptococcus anginosus</i>			3	11%	2	3%	
<i>Staphylococcus aureus</i>			2	7%	10	13%	

Source of Funding: No

**MP11-05  
NATIONAL TRENDS IN THE TREATMENT OF FOURNIER'S  
GANGRENE: 2016-2019**

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**INTRODUCTION AND OBJECTIVE:** Fournier's gangrene (FG) is a surgical emergency with significant inpatient mortality and long-term morbidity. Population-based databases such as the National Inpatient Sample (NIS) are valuable tools in investigating rare conditions, yet no recent studies have looked at trends and outcomes of FG at a national level. An increasing burden of this disease may be placed on large academic centers due to regional demographics and hospital transfer to these centers for specialized expertise. We aimed to evaluate national trends in the management of FG to identify predictive factors of in-hospital mortality or inter-hospital transfer.

**METHODS:** All patients hospitalized with FG (2016–2019) were extracted from the NIS using the International Classification of Diseases (10<sup>th</sup> Revision) Diagnosis Code N49.3. Stratified cluster sampling was used to create weighted national estimates. The primary combined outcome was in-hospital mortality or inter-hospital transfer. Multivariable logistic regression was performed to identify predictors of this outcome.

**RESULTS:** An estimated 21,715 inpatients were treated in the US during the study period, with an 8.5% increase from 2016 to 2019. The average age was 54.8±13.9 years, length of stay was 10.8±11.7 days, and total charge of hospitalization was \$127,140±204,080. Overall, 4.3% of patients died during hospitalization and 7.2% were transferred to another short-term hospital facility. The region with the highest prevalence was the South (44.8%) and most admissions were to urban teaching hospitals (72.6%). Significant predictors of the combined outcome of in-hospital mortality or inter-hospital transfer included older age, non-private insurance, and greater Elixhauser Comorbidity Index (p<0.05). Protective factors included medium/high volume hospital, urban setting (vs. rural), Midwest/Southern region (vs. Northeast), and 2<sup>nd</sup> or 3<sup>rd</sup> cost tertile (vs. 1<sup>st</sup> tertile) (p<0.05) (Table 1).

**CONCLUSIONS:** There is an association of poor FG outcomes with non-private insurance in older adults with more comorbidities. We

also noted an increased burden of FG patients at large, urban teaching facilities due to regional demographics and inter-hospital transfer. Further work is needed to determine how inter-hospital transfer and potential delays in surgical debridement affect outcomes in FG.

**Table 1:** Multivariable logistic regression for in-hospital mortality or inter-hospital transfer in FG patients

Covariable	Odds ratio (95% CI)
Patient age (years)	<i>Reference</i>
0-49	
50-61	1.27 (1.14-1.42)*
62-90	1.56 (1.31-1.76)*
Elixhauser Comorbidity Index	<i>Reference</i>
0	
1	1.14 (0.84-1.56)
2	1.34 (1.01-1.79)*
3+	1.99 (1.53-2.60)*
Insurance	<i>Reference</i>
Private	
Medicare	1.15 (1.02-1.30)*
Medicaid	1.42 (1.24-1.61)*
Self-pay	1.36 (1.14-1.61)*
No charge	0.80 (0.42-1.54)
Other	2.09 (1.68-2.60)*
Median income by zip code	<i>Reference</i>
1 <sup>st</sup> quartile	
2 <sup>nd</sup> quartile	1.11 (0.99-1.24)
3 <sup>rd</sup> quartile	1.15 (1.02-1.30)*
4 <sup>th</sup> quartile	1.40 (1.22-1.61)*
Hospital volume	<i>Reference</i>
Low	
Medium	0.79 (0.71-0.87)*
High	0.78 (0.69-0.88)*
Hospital type	<i>Reference</i>
Rural	
Urban non-teaching	0.48 (0.42-0.56)*
Urban teaching	0.35 (0.31-0.40)*
Hospital region	<i>Reference</i>
Northeast	
Midwest	0.77 (0.67-0.89)*
South	0.72 (0.63-0.83)*
West	0.90 (0.77-1.04)
Cost tertile (dollars)	<i>Reference</i>
1 <sup>st</sup> (0-13,046)	
2 <sup>nd</sup> (13,047-28,290)	0.68 (0.62-0.76)*
3 <sup>rd</sup> (28,291-540,108)	0.60 (0.54-0.67)*

\*p<0.05

Source of Funding: None

**MP11-06  
GENDER DISPARITIES IN FOURNIER'S GANGRENE MORTALITY:  
INSIGHTS FROM NATIONAL INPATIENT SAMPLE DATA**

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**INTRODUCTION AND OBJECTIVE:** To compare male and female Fournier's gangrene (FG) patients, with an emphasis on mortality predictors.

**METHODS:** We employed National Inpatient Sample data (2016–2020) to identify FG cases using International Classification of Diseases (10<sup>th</sup> revision) codes. We extracted demographics, comorbidity, and procedural data and built logistic models for mortality prediction in both cohorts.

**RESULTS:** We found 6,451 (69.2%) male and 2,875 (30.8%) female FG cases (death rates 5.7% and 7.1%, respectively). Women had higher median age, hospital stays, charges, procedures, and greater fecal diversion rates, but lower routine discharges and urinary diversion compared to men (p<0.05). Predictors of mortality common to

both genders included age (odds ratio [OR] 1.04, 95% confidence interval [CI] 1.03–1.05 vs OR 1.04, 95% CI 1.03–1.05), time to first debridement (OR 1.03, 95% CI 1.02–1.05 vs OR 1.02, 95% CI 1–1.04), and diabetes (OR 0.65, 95% CI 0.52–0.82 vs OR 0.62, 95% CI 0.44–0.85). Gender-specific predictors of death for males included autoimmune diseases (OR 2.34, 95% CI 1.32–4.14), orchiectomy/penectomy (OR 1.71, 95% CI 1.25–2.34), perivascular diseases (OR 1.56, 95% CI 1.06–2.3), and chronic lung disease (OR 1.36, 95% CI 1.03–1.79), and for females comprised Native American Ethnicities (OR 3.93, 95% CI 1.27–12.17) and Asian/Pacific Islander (OR 3.39, 95% CI 1.32–8.69). South/Midwest regions (OR 0.62, 95% CI 0.46–0.84 and OR 0.64, 95% CI 0.45–0.9) and obesity (OR 0.74, 95% CI 0.58–0.96) were associated with lower mortality risk in men, while depression was associated with lower odds of mortality in women (OR 0.52, 95% CI 0.3–0.9).

**CONCLUSIONS:** The patient profiles and clinical factors contributing to mortality in cases of FG are not identical between male and female individuals. These results offer insights into gender-specific aspects of the condition, informing tailored approaches to prevention and treatment.

**Source of Funding:** None

**MP11-07**

**SOFT TISSUE INFECTIONS AFTER HOLEP: AN UNDER-DESCRIBED COMPLICATION**

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**INTRODUCTION AND OBJECTIVE:** Holmium Laser Enucleation of the Prostate (HoLEP) is a size independent surgical treatment for benign prostatic hyperplasia (BPH). While post-HoLEP symptomatic urinary tract infection (UTI) occur in 3-20%, the incidence of soft tissue infections (epididymitis and/ or orchitis (EO)) is not well described. Following transurethral resection of the prostate (TURP), EO occur at a 1-2% rate. In contrast to TURP, HoLEP involves high pressure irrigation in close proximity to the surgical capsule. We hypothesize that high pressure may drive an increased risk of EO. Herein, we aim to determine the rate and risk factors for infectious complications overall and soft tissue infections specifically after HoLEP.

**METHODS:** We randomly sampled 300 patients from a prospectively maintained database of HoLEP patients operated by 5 surgeons from 6/1/2018 to 1/1/2022 at a single tertiary center. Comprehensive clinical data and infectious complications were abstracted from the clinical record. UTI was defined as storage symptoms and a urine culture with >100,000 colony forming units of pathogenic organism; EO was defined as patient-reported pain and exam or ultrasound consistent with EO.

**RESULTS:** Of 300 HoLEP patients 26 (8.7%) experienced an infectious complication within 90 days of surgery. Infectious complications included UTI (n= 16, 61.5%) and EO (n=10, 38.5%). All EO with positive culture were gram negative bacteria (n=9), while UTI were mixed (Table 1). Preoperative characteristics were similar in patients with and without infectious complications. Longer post-HoLEP catheter duration (4.2 vs 2.7 days, p=0.01) was associated with infectious complications overall but not specifically with EO. UTI vs EO was not associated with preoperative bacteriuria, history of recurrent UTI, or post-operative severity of illness (e.g. need for admission (n=6) or treatment as outpatient (n=20)).

**CONCLUSIONS:** We identified a 3% rate of soft tissue infections after HoLEP in the context of an 8.7% overall rate of infectious complications. Patients with longer post-operative catheter duration were at higher risk of overall infectious complications but not specifically for EO. These data suggest that HoLEP patients may be at increased risk of soft tissue infections compared to other BPH surgical modalities and support early catheter removal when feasible.

Table. Comparison of Patients with and without Infectious Complication after HoLEP

	Soft Tissue Infection (n=10)	Urinary Infection (n=16)	No Infection (n=274)	p-values
<b>Pre-op Characteristics:</b>				
Age at Surgery (years), mean ± SD	70.5 ± 8.3	71.2 ± 7.1	70.4 ± 7.9	0.74
BMI, mean ± SD	28.3 ± 5.3	29.1 ± 5.5	29.2 ± 5.3	0.69
Prostate volume (grams), mean ± SD	108.2 ± 74.6	119.87 ± 75.9	111.4 ± 61.4	0.76
<b>Pre-op Bladder Management, n (%)</b>				
Voiding	5 (50)	11 (68.8)	188 (68.6)	0.51
CIC	1 (10)	0 (0)	23 (8.4)	
Indwelling Catheter	4 (40)	5 (31.2)	63 (23.0)	
<b>Intra-op Characteristics:</b>				
Enucleation time (minutes), mean ± SD	71.1 ± 49.1	67.9 ± 32.4	59.7 ± 30.1	0.17
Morcellation (minutes), mean ± SD	11 ± 9.6	12.8 ± 9.9	11.0 ± 9.9	0.57
Passed initial VT, n (%)	10 (100)	16 (100)	263 (96.0)	1.000
<b>Post-op Characteristics:</b>				
Catheter duration (days), mean ± SD	3.7 ± 3.5	4.5 ± 4.4	2.7 ± 1.9	0.001
<b>Postop Bladder Management, n (%)</b>				
Voiding	9 (90)	15 (93.8)	268 (97.8)	0.08
CIC	1 (10)	1 (6.2)	3 (1.1)	
Indwelling Catheter	0	0 (0)	3 (1.1)	
Follow-up (months), mean ± SD	28.2 ± 12.6	21.3 ± 7.9	27.6 ± 12.6	0.15
Bacteria in urine identified at time of infection	Proteus, n=2 E Coli, n=4 Klebsiella, n=3 None, n=1	Proteus, n=2 E Coli, n=2 Klebsiella, n=5 Citrobacter, n=1 Enterococcus, n=1 Staph Epidermidis, n=3 Strep Anginosus, n=1 Staph Hemolyticus, n=1		n/a

CIC= clean intermittent catheterization; SD= standard deviation; UTI= urinary tract infection; VT= Void Trial. P-values represent differences between patients with no infection and those who had an infection following HoLEP surgery.]

**Source of Funding:** N/A

**MP11-08**

**HUMAN PAPILOMAVIRUS (HPV) PREVALENCE AND GENOTYPE DISTRIBUTION AMONG FEMALES IN SOUTH KOREA: IMPLICATIONS FOR VACCINATION STRATEGIES**

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**INTRODUCTION AND OBJECTIVE:** Human papillomavirus (HPV) prevalence and genotype distribution vary among nations and regions. Previous studies have predominantly focused on HPV infection in Western females, while epidemiological studies of HPV infection in regional populations have been scarcely reported. The lack of information on HPV genotype distribution within regional populations raises questions about the efficacy of the current 9-valent vaccination.

**METHODS:** Human papillomavirus (HPV) prevalence and genotype distribution vary among nations and regions. Previous studies have predominantly focused on HPV infection in Western females, while epidemiological studies of HPV infection in regional populations have been scarcely reported. The lack of information on HPV genotype distribution within regional populations raises questions about the efficacy of the current 9-valent vaccination.

**RESULTS:** The overall HPV prevalence was 44.3%, with a prevalence of 37.5% for HR HPVs and 18.3% for LR HPVs. The most common HR genotypes were 52 (7.1%), 53 (6.2%), 58 (5.0%), 68 (4.8%), and 16 (4.3%). Among the 211,883 females with HPV infection, 72,252 (34.1%) had an HR genotype that cannot be prevented by the 9-valent vaccine. The most prevalent non-preventable HR genotypes included 68 (4.8%), 51 (4.1%), 39 (3.8%), and 56 (3.7%). HPV prevalence was highest among teenagers (58.3%) and women in their 20s (51.9%), as shown in Table 1. Moreover, the prevalence of HR HPV that is not preventable by the 9-valent vaccine was significantly higher among teenagers (46.7%) and women in their 20s (37.6%) compared to other age group.

**CONCLUSIONS:** This study reveals a high prevalence of HR HPVs among females under 30 years of age in South Korea, along with a significant proportion of HR HPV genotypes that are not preventable by the current 9-valent vaccine. Based on these findings, it is imperative to assess the feasibility of developing an HPV vaccination strategy tailored to the specific needs of Korean females.