

# POSTER SESSION III ABSTRACTS

## Poster #57

### MYOFASCIAL PAIN IN PATIENTS WITH SYMPTOMS OF URINARY TRACT INFECTION

Birte Wolff<sup>1</sup>, Cara Joyce<sup>2</sup>, Cynthia Brincat<sup>1</sup>, Elizabeth Mueller<sup>1</sup> and Colleen Fitzgerald<sup>1</sup>Loyola University Medical Center; <sup>2</sup>Loyola University Chicago Stritch School of Medicine

Presented By: Colleen M. Fitzgerald, MD

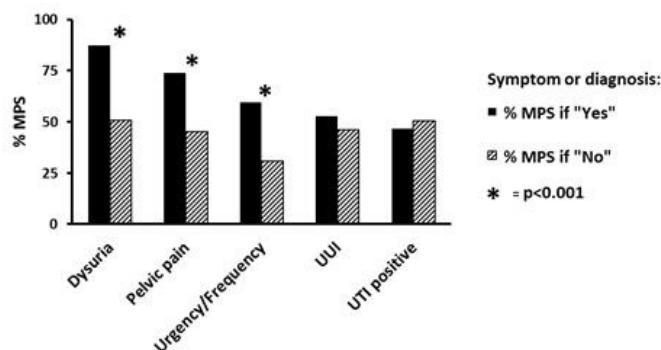
**Objectives:** To investigate the association of self-reported symptoms of urinary tract infection (UTI) and findings of myofascial pain of the pelvic floor (MPS) on physical exam, in patients with negative vs positive urine cultures.

**Methods:** A retrospective chart review was performed of all new patients presenting to a urogynecology office between August and December 2016. Patient demographics and exam findings were collected. The associations between patient characteristics and myofascial pain syndrome (MPS) were assessed via Cochran-Armitage Trend tests for ordinal variables and chi-square or Fisher's exact test as appropriate for nominal variables. Odds ratios and 95% confidence intervals were estimated from univariable logistic regression models to predict MPS. A separate multivariable logistic regression model included age, race, parity, prolapse stage, and pelvic floor symptoms.

**Results:** A total of 250 patients were included in the final analysis. Of the 262 patients who presented to the urogynecology office, 12 patients were excluded from the analysis due to missing data. The mean age was 59 years (SD=17), 32.8% were non-Caucasian, 90.4% had previously given birth, and 41.7% had a prolapse stage  $\geq 2$  (mean 1.16 +/- 1.15 S.D.). Pelvic floor symptoms included frequency (63.5%), urgency (61.8%), urgency urinary incontinence (56.0%), pelvic pain (16.8%), and dysuria (9.6%). A positive urine dip was detected in 31% of patients and 6% had a positive culture for UTI. MPS was detected in 50.0% of patients.

Patient characteristics associated with significantly higher rates of MPS were lower prolapse stage ( $p<0.001$ ), age under 50 years ( $p<0.001$ ), lower parity ( $p=0.028$ ), and non-Caucasian ethnicity ( $p=0.003$ ). The presence of MPS was also marginally associated with history of depression ( $p=0.079$ ). A positive urine culture was not associated with MPS ( $p=0.77$ ). Urgency/frequency, pelvic pain, and dysuria were independent predictors of MPS, though urinary incontinence was not (Figure 1). After adjusting for other important characteristics, women with prolapse stages 0-1 had over twice the odds of MPS compared to those with stages  $\geq 2$  (aOR: 2.20, 95% CI: 1.21-4.01). Pelvic floor symptoms associated with MPS included dysuria (aOR: 4.13, 95% CI: 1.08-15.78), urgency/frequency (aOR: 2.72, 95% CI: 1.47-5.04), and pelvic pain (aOR: 2.57, 95% CI: 1.08-6.12).

**Conclusion:** In this retrospective analysis, symptoms which may be associated with UTI: urinary urgency or frequency, dysuria and pelvic pain were associated with presence of MPS. However the presence of UUI or current UTI were not associated with MPS. These findings support the importance of considering myofascial pain as differential diagnosis. Our study points to a pathogenesis related to muscular dysfunction in urgency-frequency syndrome without UUI and larger prospective trials are now needed.



## Poster #58

### EFFECTIVENESS OF PELVIC FLOOR MYOFASCIAL RELEASE FOR OVERACTIVE BLADDER

Birte Wolff<sup>1</sup>, Cara Joyce<sup>2</sup>, Lindsey McAlarnen<sup>1</sup>, Cynthia Brincat<sup>1</sup>, Elizabeth Mueller<sup>1</sup> and Colleen Fitzgerald<sup>1</sup>Loyola University Medical Center; <sup>2</sup>Loyola University Chicago Stritch School of Medicine

Presented By: Colleen M. Fitzgerald, MD

**Objectives:** To report the effectiveness of pelvic floor physical therapy (PFPT) with and without myofascial release for women with overactive bladder (OAB).

**Methods:** We performed a retrospective chart review of new patients presenting to a tertiary urogynecology clinic from August to December 2016. We reviewed both their clinic notes as well as their PFPT progress notes. We abstracted for demographics, symptoms, physical exam, the number of therapy sessions attended, whether myofascial release was performed and whether the patient reported improvement.

**Results:** 193 of 273 patients self reported symptoms of OAB (urinary urgency, frequency or urgency urinary incontinence) meeting inclusion criteria for analysis. Those analyzed had a mean age of 58.9 years ( $\pm 16.6$  SD), mean BMI 30.3 kg/m<sup>2</sup> ( $\pm 7.5$  SD), median parity 2 (range 0-10), and median stage of prolapse 1 (range 0-4). Myofascial tenderness of the pelvic floor muscles was elicited in over half (109, 56.5%) of patients on exam. PFPT was prescribed in 162 women (83.9%). Of those, 78 women (48.1%) attended the prescribed PFPT. Myofascial release techniques were applied in 59 patients and the remaining 19 had treatment with a cognitive or muscle strengthening focus. The subgroup in which PFPT was not prescribed, had higher stages of prolapse (40.0% prolapse stage 3-4;  $p<0.001$ ) and were older (mean age: 68 $\pm$ 13 years SD;  $p=0.003$ ).

Per PFPT progress notes, improvement was reported in 55 of 78 patients (70.5%) who attended PFPT. Improvement was independent of age, parity, ethnicity, BMI, prolapse stage or specific pelvic floor symptom, but it was dependent on the length of treatment and whether physical therapy sessions included myofascial release. The frequency of improvement depended on the number of therapeutic sessions attended: 1-2 sessions: 6% (1/17), 3-5 sessions: 94% (16/17), 5-8 sessions: 91% (29/32) and >8 sessions: 80% (8/10) improved, respectively ( $p<0.001$ ). Among the patients who had myofascial release techniques, 84.7% (50/59) of patients reported improvement in their symptoms when compared to only 26.3% (5/19) of patients who had physical therapy without myofascial release ( $p<0.001$ ). The odds of improvement were 14.44 times greater (95% CI: 4.13-50.51) for those with myofascial release performed compared to those without.

**Conclusion:** Women with OAB have high rates of improvement with PFPT, especially when receiving myofascial release techniques. This suggests a muscular component in the etiology of OAB and warrants a future prospective trial comparing directed myofascial release with behavioral therapy using validated outcome measures. Given this data patients should be encouraged to attend at least three sessions to experience improvement.