Introduction:

- What is Prostatitis?
  
  ○ Prostatitis is a common outpatient disease in urology, during their lifetime 35-50% of men will suffer from prostatitis
    
    ■ Prevalence 10-14% in Europe and USA
    
    ■ In the US 8% of urologists visits are motivated by this
  
  ○ Morbidity of prostatitis is higher in men who are not over 50.
  
  ○ Prostatitis is divided into 4 categories - chronic prostatitis or chronic pelvic pain syndrome accounts for most cases of prostatitis
  
  ○ Can manifest clinically as: pelvic pain or perineal pain, irritative or obstructive voiding symptoms, sexual dysfunction. Or psychological. Disorders, and is without any evidence of urinary tract infection.
  
  ○ Chronic pelvic pain often occurs with pelvic floor tenderness, thus the patients will feel pain at the time of palpation (myalgia?)
  
  ○ CPPS categorized as
    
    ■ Symptoms lasting for at least 3 months
    
    ■ Discomfort or pain in the pelvic area or perineum
    
    ■ No apparent cause can be found

- How do we assess chronic prostatitis?
  
  ○ NIH-CPSI:
    
    ■ Pain levels are graded as mild (0 to 7)
- Moderate (8 to 13)
- Severe (14 to 21)

This article reports the CPSI as a 21 point scale, but it actually has a maximum score of 35, so I am not sure what items they have excluded.

- GUPI
  - Revision of the NIH-CPSI, includes questions on pain with bladder filling and bladder emptying

- Pain and CPPS
  - Pain relationship with QoL was more important than urinary symptoms
  - Pain was severity was more important than pain localization/type
  - Therefore, studying the risk factors for pain severity and clarifying the pain severity are important for improving the strategy and of individualized guided treatment

Aim:
- Determine the risk factors for increased pain severity for patients with CP/CPPS

Study Design/Study Format:
- Study Design:
  - 322 patients that were diagnoses with CP/CPPPS
    - Excluded if they had a urologic disease
    - Required a score over or equal to 4 on the NIH-CPSI
    - Patients over 50 had their PSA checked (had to be <4.0 ng/ml to exclude prostate cancer
    - 50 were excluded for missing baseline values

Method:
- 11 variables
  - Holding back urine (waiting to the last second to urinate)
  - Contraception (use of condoms)
  - Anxiety/Irritability (assessed with the Self-Rating Anxiety Scale)
    - >50 = dx of anxiety for the purpose of this study
- Alcohol intake per week (>100 g/w = 3.5 oz liquor/ 7 beers per week)
- Smoking Habits
- Sex Life
- Age
- BMI
- White cells in the urine
- Past medical hx of urological diseases
- Contraception
  - Grouped into 2 groups based on the NIH-CPSI Score
    - Mild symptoms (< 8)
    - Moderate or severe symptoms (>8)

Results
- Risk Factors
  - Age
    - More prevalent in older people
    - Younger age is associated with more CP/CPPS symptoms
    - 40-50 had a higher risk for pain severity
  - Holding back urine
    - These authors are postulating that holding back urine leads to urinary retention and leads to pelvic distension of the venous plexus of the prostate peripheral zone or chronic congestion of the pelvic cavity with sitting. Unfortunately the reference they cited for this is not reliable.
    - These patients frequently have urgency/frequency and we frequently tell them to defer the urge!
    - Increased pelvic floor muscle contractions with urge deferment... We tell them to relax, but are they?
    - Sensitization is common in this population. When there is a negative stimulus *urge* is that increasing sensitivity?
    - So... should we be telling these patients to hold back urine??
  - Anxiety/irritability
- People who are under stress at work or home are 1.5 x more likely to suffer from CP/CPPS than unstressed
  - **Contraception**
    - Prolonged sexual activity -> pelvic congestion will regress in about 15-30 minutes after an orgasm, but may last longer without an orgasm
    - Cultural Bias? Lowest P value… Is it condoms? Sexual activity? Stay tuned for more… Maybeeee something to bring up to patients
  - **Smoking**
    - Enhanced pain sensitivity (controversial if it effects CPPS)
    - Also
      - Sedentary work and increased alcohol consumption initially appeared to influence severity, but did not upon statistical analysis and were not included in multivariate regression

- **Predictive Nomogram:**
  - A predicting model of pain severity in patients with CP/CPPS
  - Could be used to predict the pain severity in patients with CP/CPPS
    - Good agreement in the training cohort
    - ROC curve confirmed the predictive value
  - Conclusion: the nomogram can precisely and steadily judge pain severity in patients with CP/CPPS

- Next Stage of research: if we can change these items, does it effect our pain severity?

**Discussion/Limitations:**
- Do we really want a predictive equation for our patient’s pain?
- Can knowing these factors help us with our CP/CPPS?
- Study did not go through a rigorous peer reviewed process
  - Conclusions about marriage without a basis in the study
  - Contraception/sexual activity conclusions inconclusive
  - Urinary retention - they did not actually dx with urinary retention/ Sedentary Lifestyle
    - Distension of the venous plexus of the prostate peripheral zone or chronic congestion of the pelvic cavity with sitting
“Urinary retention has a significant correlation with the pain severity in CP patients“

- This reference source was unreliable and did not make this conclusion based on evidence

**List Discussion Questions:**

Do you ask your patients with urgency/chronic prostatitis to delay the urge/hold back urine?

In your clinical experience, have you found that your CPPS patients have these risk factors?

If a patient presents with all of these risk factors, does that change your clinical approach to their treatment? Does it effect your prognosis or plan of care?