but a significant difference was observed in terms of energy ratio = Energy delivered / prostate volume (Graphic 2): 3.2kJ / ml [2.5, 4.1kJ] (Montreal) vs 2.5kJ / ml [1.7-3.0] (Paris) vs 4.1kJ / ml [2.9-5.2] (Toulouse) (p < 0.0001). (Figure 2) No differences were observed in terms of postoperative complications (17.6% vs. 22.3% vs. 19.8%; p = 0.64).

CONCLUSIONS: This is the first study to support that the outcomes obtained during PVP learning curve may be influenced by patients and surgeons’ characteristics. In this study, 100 Greenlight 180-W XPS PVP procedures were required before to reach a plateau in intraoperative parameters.

Source of Funding: none

MP13-10
SURGICAL MANAGEMENT OF BENIGN PROSTATIC OBSTRUCTION: 20-YEAR POPULATION-LEVEL TRENDS
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INTRODUCTION AND OBJECTIVES: Benign prostatic obstruction (BPO) due to histologic benign prostatic hyperplasia is highly prevalent among older men. Despite widespread use of medical therapy, surgical treatment remains a mainstay in the management of BPO. We sought to characterise trends in the surgical management of BPO in a single-payer healthcare system in Ontario, Canada over a 20 year period.

METHODS: We performed an interrupted time-series analysis using segmented regression among men aged 18 years and older undergoing surgical treatment for BPO between January 1, 1994 and December 31, 2014 in Ontario, Canada. The passage of time was considered the primary exposure. The primary outcome was the proportion of all BPO surgeries performed using each of the following modalities: transurethral resection of the prostate (TURP), endoscopic laser prostatectomy, open/laparoscopic prostatectomy, and others. Secondary outcomes included trends in the age and comorbidity of patients undergoing BPO surgery.

RESULTS: We identified 136,459 men who underwent BPO surgery between 1994 and 2014. Across the study interval, the annual age-adjusted rate of BPO surgery declined significantly (24 per 10,000 population in 1995 to 10 per 10,000 population in 2014). We identified two distinct epochs with respect to treatment modality. From 1994 to 2001, there were no significant changes in the distribution of BPO surgical modalities with TURP the most common throughout (97.2% in 1994 and 97.0% in 2001). In the period 2002 to 2014, there was a significant decline in the use of TURP (92.1% to 76.9%; p = 0.027) with a corresponding increase in the use of endoscopic laser prostatectomy (3.5% to 21.9%; p = 0.0008). We identified small but statistically significant increases in the age (p = 0.0004) and comorbidity (p = 0.0001) of patients undergoing BPO surgery over time.

CONCLUSIONS: This large, population-based study demonstrates a shift in the management of BPO with increasing use of endoscopic laser prostatectomy, beginning in 2002. However, TURP remains the most common treatment modality. We also identified shifting demographics of patients undergoing BPO surgery with a trend for patients to be older and have greater comorbid disease at the time of surgery in more recent years.

Source of Funding: University of Toronto Functional Urology Research Group

MP13-11
FACTORS THAT INFLUENCE ON LOWER URINARY TRACT SYMPTOM (LUTS) RELATED QUALITY OF LIFE (QOL)
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INTRODUCTION AND OBJECTIVES: American urologic association symptom Index (AUA-SI) with the quality of life (QoL) item is the most widely used questionnaire for evaluating lower urinary tract symptom (LUTS). Symptom severity does not always account for negative impact on QoL, and someone have worse QoL scores although he has only mild LUTS. In this study, we evaluated the factors affecting the LUTS related QoL score.

METHODS: This retrospective study analyzed 29,123 men who underwent health check-ups from January 2007 to July 2011 at a single institution. Those patients who completed the AUA-SI with QoL, Beck depression inventory (BDI) and state-trait anxiety inventory (STAI) questionnaires were included in the study. Men with a history of medication for LUTS were excluded from the study. Men who submitted QoL scores of 3 or higher in spite of mild LUTS (total AUA-SI score < 8) were defined as having a relatively worse QoL.

RESULTS: Mean age of 21,390 men was 48.4 ± 9.5 years. Mean total AUA-SI score was 6.4 ± 5.9 points. The QoL score was well correlated with the total AUA-SI score (r = 0.600, p < 0.001). Among all AUA-SI items, AUA-SI item 1 (incomplete emptying, r = 0.600, p < 0.001) had the strongest correlation with QoL scores. On the multivariate analysis, hypertension, total AUA-SI score, BDI score, and trait anxiety score were found to be independent factors that influenced the QoL scores. A lower age, a higher PSA, a higher AUA-SI score and a higher BDI score were risk factors for relatively worse QoL scores in spite of mild LUTS.

CONCLUSIONS: Among the 7 items of AUA-SI, AUA-SI item 1 has the strongest correlation with a worse LUTS related QoL. Psychological status also influences the QoL scores.

Source of Funding: none

MP13-12
SHIFT WORKERS WITH SHIFT WORK SLEEP DISORDER HAVE INCREASED LOWER URINARY TRACT SYMPTOMS
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INTRODUCTION AND OBJECTIVES: Non-standard shift workers, who regularly work hours outside a 7am-6pm workday, have
an increased risk of lower urinary tract symptoms (LUTS) relative to daytime workers, and are also at increased risk for shift work sleep disorder (SWSD), a primary circadian rhythm disorder indicated by excessive daytime sleepiness associated with shiftwork. Here we examine the association between SWSD and LUTS in shift workers.

METHODS: Men presenting to a single andrology clinic between July 2014 and September 2016 completed questionnaires that assessed work schedule, SWSD risk, and LUTS (International Prostate Symptom Score (IPSS)). The impact of non-standard shift work and SWSD on IPSS score was assessed using ANOVA and linear regression.

RESULTS: Of the 2,487 men who completed the questionnaires, 766 (30.8%) reported working non-standard shifts in the past month. Of these, 282 (36.8%) were diagnosed with SWSD. Cohort characteristics are described in Table 1. When controlling for age, comorbidities (via the Charlson Comorbidity Index), and testosterone (T) levels, non-standard shift work was not associated with worse LUTS (P = 0.99). However, non-standard shift workers diagnosed with SWSD had IPSS scores 3.1 points higher than non-standard shift workers without SWSD (P < 0.0001).

CONCLUSIONS: Non-standard shift workers diagnosed with SWSD have worse LUTS than those without SWSD, suggesting that poor sleep habits, rather than shift work itself, contribute to worse LUTS. Modification of work and sleep schedules may reduce the risk for SWSD and subsequent LUTS.

CONCLUSIONS: In men who complain of nocturia resulting in not getting enough sleep, treatment of LUTS with dutasteride significantly improves LUTS but has no effect on sleep including feeling rested in the morning or getting enough sleep (p > 0.1 at all visits). When analyses were limited to symptomatic men (IPSS > 8) or men with ≥ 2 nocturia episodes per night, results were unchanged in that dutasteride improved LUTS including nocturia but had no effect on sleep function including feeling rested in the morning or getting enough sleep.

CONCLUSIONS: In men who complain of nocturia resulting in poor sleep, the poor sleep is not likely to be due to LUTS but rather likely represents a primary sleep problem. Consideration should be given to referring these men to sleep experts to evaluate for sleep problems like sleep apnea or insomnia.

Source of Funding: none

MP13-14
STUDYING THE EFFECT OF DIABETES MELLITUS TYPE 2 ON PROSTATE RELATED PARAMETERS: A PROSPECTIVE SINGLE INSTITUTIONAL STUDY.

INTRODUCTION AND OBJECTIVES: Diabetes mellitus (DM) is a serious culprit of male health. A positive association exists between clinical markers of BPH and DM. The aim of this work is to examine the effects of type 2 diabetes mellitus (DM) on the variables associated with prostatic growth including serum PSA, serum testosterone and prostate volume and to correlate these variables with the duration of diabetic treatment.

METHODS: Our study was conducted over 3 months recruiting 501 men aged 55 years old or more, of which 207 patients had type 2 DM. Exclusion criteria were active urinary tract infection, suspicious rectal examination, urologic cancers, end organ damage and recent urologic manipulations. Serum PSA and serum testosterone were measured. Prostate volume was determined by abdominal ultrasonography using ellipsoid formula. This study was approved by the ethical committee and informed consents were obtained from participating patients.

RESULTS: The mean patient age was 60.21 ± 5.95 years. The mean PSA, Testosterone and prostate volume for diabetic men were 2.3 ng/ml, 3 ng/ml and 56 grams respectively. These were 3.5 ng/ml, 4 ng/ml and 51 grams respectively for non-diabetics. (p < 0.001, p < 0.001, p 0.03 respectively). The mean PSA density was 0.049 ± 0.043 ng/ml/cm³ in diabetics versus 0.080 ± 0.056 ng/ml/cm³ in non-diabetics (p < 0.001). As high BMI in diabetic patients was a confounding factor, multiple regression analysis was done (table 1), confirming the true significant correlation of DM with the studied parameters.