NS-AUA 2023 Annual Meeting Abstracts – Infertility, Impotence, General Urology

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Abstract 90

Peyronie's plaque elastin content and outcomes of plaque excision and grafting in Peyronie's disease: Does elastin inform disease severity?

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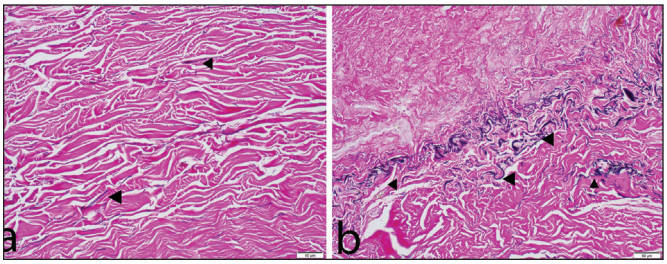
Introduction: Plaque excision and grafting is employed in severe Peyronie's disease, such as those with refractory disease, significant deformity, or plaque calcification. The primary objective of this study was to evaluate the amount of elastin and collagen in Peyronie's disease plaques. This study also sought to evaluate outcomes, including improvement in erectile dysfunction, improvement in curvature, and complications in subjects undergoing plaque excision.

Methods: The institutional review board approved this study. Retrospective chart review evaluated subjects who underwent plaque excision for Peyronie's disease. Peyronie's plaques from our institutional biobank were stained using Verhoeff Van Gieson stain for collagen and elastin.

Results: Between January 2000 and October 2022, seven subjects were identified, six of whom had undergone a plaque excision with Tutoplast® grafting, two of whom had plication, and one of whom had an unknown procedure. Median age was 54 years. Maximal angle of curvature was a median 70 degrees (range 40–90) and two had calcified plaques. Five subjects had erectile dysfunction. All had subjective curvature improvement and three had improved erectile dysfunction postoperatively. Two subjects had wound dehiscence, both of which were managed conservatively (Clavien I). Median elastin fiber:collagen fiber ratio was 5, with a range of 5–20. Most subjects' plaques were comprised of 90% or greater collagen and 5% or less of elastin (Figure 1A). One subject's plaque was comprised of 15% elastin fibers (Figure 1B). This individual had a calcified plaque with a 65-degree curvature and had intact erectile function and was the only subject included in this study who had not had any Peyronie's therapy prior to his plaque excision and grafting. For this individual, it is unclear whether his Peyronie's disease is less severe or whether some standard Peyronie's disease treatments alter elastin.

Conclusions: Following plaque excision and grafting, subjects had improved curvature and erectile dysfunction with few complications. Plaques were primarily composed of collagen with minimal elastin. Less severe disease may be associated with greater elastin content.



Abstract 90. Figure 1. Collagen (pink) and elastin (black) content in Peyronie's plaques. (a) Example of plaque tissue with minimal elastin. (b) Plaque with higher elastin content.

Abstract 91

The evaluation of three validated comorbidity indices to predict postoperative outcomes after inflatable penile prosthesis and artificial urinary sphincter placement: Which is best?

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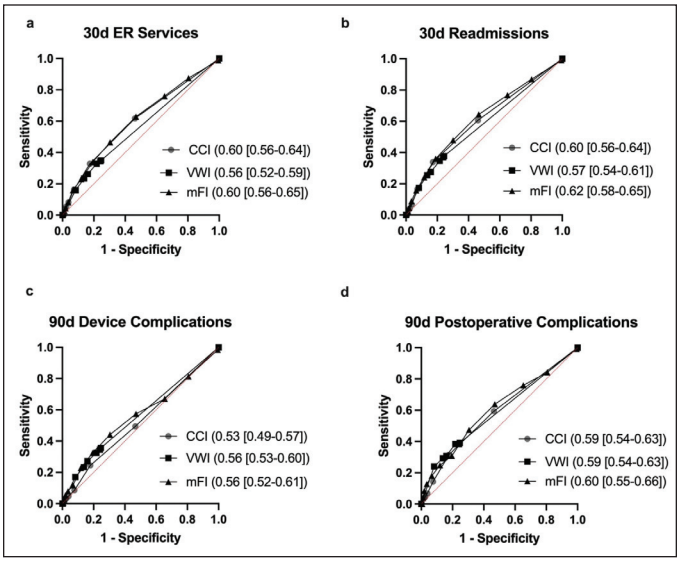
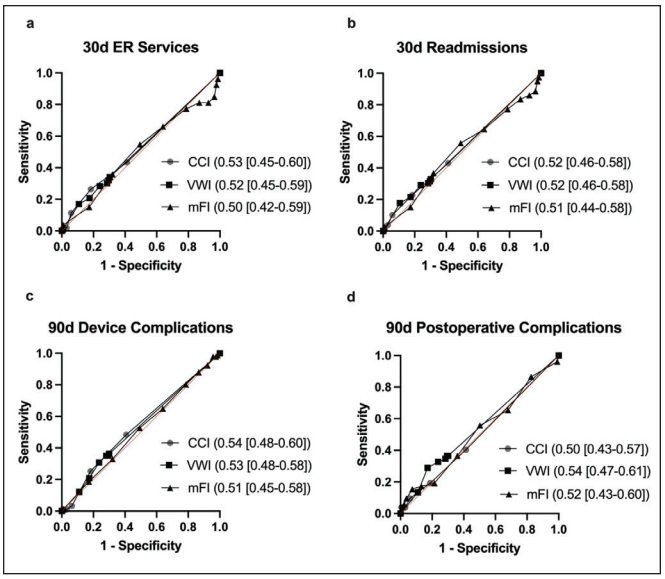
Introduction: Patients with increasing comorbidities are at risk of poor postoperative outcomes. Comorbidity indices have been developed to identify high-risk patients; the most common include the Charlson Comorbidity Index (CCI), Elixhauser/Van Walraven Index (VWI), and modified frailty index (mFI). This study compares the ability of these indices to predict adverse events after inflatable penile prosthesis (IPP) and artificial urinary sphincter (AUS) placement.

Methods: Using the State Inpatient Database (SID) and State Ambulatory Surgery and Services Database (SASD) for Florida (FL) from 2010–2015 and for California (CA) from 2010–2011, we identified patients who underwent IPP or AUS placement. CCI, VWI, and mFI were calculated for each patient. We extracted 30-day ER services, 30-day inpatient readmissions, 90-day postoperative complications, and 90-day device complications. We constructed receiver operating characteristic curves and compared area under the curve (AUC) between the comorbidity indices using the Delong method.

Results: We identified 4242 IPP patients (3060 from FL and 1182 from CA) and 1190 AUS patients (705 from FL and 485 from CA); 4.4% of IPP patients and 7.6% of AUS patients had a device complication. All three comorbidity indices had poor performance in predicting postoperative outcomes. All AUCs and their 95% CIs were less than 0.70. For IPP placements, the CCI was the weakest predictor of 90-day device complications (AUC 0.53, 95% CI 0.49–0.57), while the VWI was weakest for 30-day ER services (AUC 0.56, 95% CI 0.52–0.59) (Figure 1). All indices had better performance for IPP patients compared to AUS patients (Figure 2). These findings were consistent when analyzing each state individually.



Abstract 91. Figure 1. Comparison of ROC curves and AUCs for the predictive power of CCI, VWI, and mFI comorbidity indices after IPP placement.



Abstract 91. Figure 2. Comparison of ROC curves and AUCs for the predictive power of CCI, VWI, and mFI comorbidity indices after AUS placement.

Conclusions: All three commonly used comorbidity indices had poor predictive ability of adverse outcomes following IPP or AUS implantation. Our results support the need for further research and development of a urology-specific comorbidity index to better identify high-risk patients.

Abstract 92

Real-world four-year functional and surgical outcomes of Rezum therapy in younger versus elderly men

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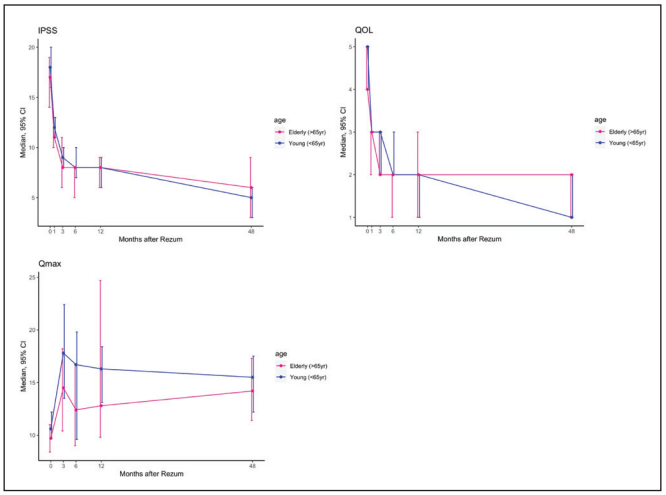
Introduction: Management of lower urinary tract symptoms (LUTS) in elderly patients with benign prostatic hyperplasia (BPH) is complex given challenges with medications and invasive surgeries. Rezum, a minimally invasive water vapor therapy, is an emerging alternative; however, there is a paucity of long-term outcomes stratified by age. We compare real-world Rezum outcomes between young and elderly patients over four years.

Methods: We retrospectively analyzed a multiethnic population treated with Rezum at a single center from 2017–2019. Patients were stratified into young (<65 years) or elderly (≥65 years) cohorts. International Prostate Symptom Score (IPSS), Quality of Life (QoL), maximum urinary flow rate (Qmax), decision regret scores, and adverse events (AEs) were assessed at baseline and at one, three, six, 12-, and/or 48 months. Descriptive statistics of cohorts were compared using t-tests, Chi-squared, and Mann-Whitney U tests. Changes in outcomes were assessed using Wilcoxon signed-rank tests, stratified by age.

Results: A total of 256 patients — 146 (57%) young and 110 (43%) elderly — were included. The majority were Asian (33.2%) or non-Hispanic Black (28.9%). At baseline, 84.9% and 87.3% of young and elderly patients, respectively, had moderate-severe LUTS. Significant improvements were observed in the combined cohort at four years in IPSS (17.5 [11–24] vs. 5 [2–12], p<0.001), QoL (5 [3–5] vs. 1 [0–3], p<0.001), and Qmax (10.2 [8–13.4] vs. 15.5 [11.6–18] mL/s, p=0.003) compared to baseline. Between the age cohorts, there were no significant differences in IPSS, Qmax, or QoL at any followup. Within both cohorts, improvements from baseline in IPSS and QoL were found at all followups. In the young cohort, Qmax was significantly improved from baseline at all followups. In the elderly cohort, this was observed only at the three-month followup. No significant differences in postoperative AEs (including hematuria, dysuria, and penile pain) or decision regret scores were found between cohorts. Similarly, no significant difference was found in four-year surgical retreatment rates between cohorts (4.0% vs. 4.4%, p=0.86).

Conclusions: We found no significant differences in IPSS, QoL, or AEs between elderly and younger men over four years following Rezum, suggesting comparable benefits and risks. Additional work is desired to clarify the impact of Rezum on Qmax in the elderly.



Abstract 92. Figure 1. Change in IPPS, QoL, and Qmax for young (blue) and elderly (pink) men undergoing Rezum over four years of followup

Abstract 93

Vasectomy trends in Western NY following Dobbs v. Jackson Women's Health Organization

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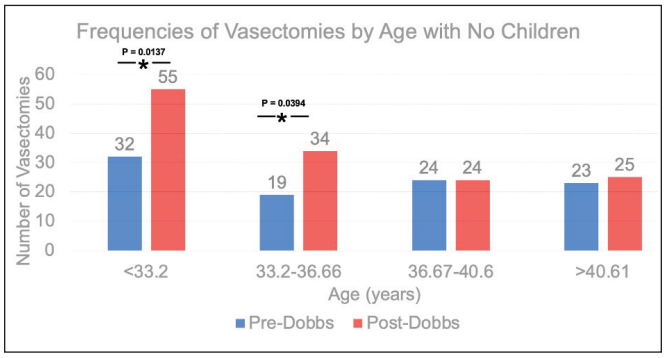
Introduction: On June 24, 2022, the United States Supreme Court ruled on Dobbs v. Jackson Women's Health Organization (Dobbs) that the Constitution of the United States does not confer a right to abortion. The court's decision overruled both Roe v. Wade (1973) and Planned Parenthood v. Casey (1992), giving individual states the full power to regulate any aspect of abortion not protected by federal law. Our study aims to identify the difference, if any, in the number of vasectomies performed in Western NY before and after the ruling on Dobbs v. Jackson Women's Health Organization.

Methods: We performed a retrospective chart review of 2428 patients who had vasectomies in Western New York from August 2021 to March 2023. Leveraging a dataset containing deidentified patient information, we compared the rates of all men undergoing vasectomies in the six-month period before and after the ruling. Vasectomy case information collected by urologists in Buffalo dating back to 1996 was collected and tabulated using Excel. Statistical analyses were performed to compare differences in both the overall change in frequency of vasectomies among all men in the six-month period before and after the court decision, as well as by specific demographic groups. Statistical analyses were performed in R and SAS.

Results: Men with no children had a statistically significant increase (p=0.009) in the number of vasectomies in the six-month period after the Dobbs decision (n=138) compared to before (n=98). Rates of vasectomies pre- and post- Dobbs were organized by age quartiles (<33.20, 33.20–36.65, 36.66–40.59, ≥40.60). In the "no child" group, men with ages <33.2 (p=0.0137) and ages 33.2–36.65 (p=0.0394) had significant increases in frequency of vasectomy after the court decision.

Conclusions: Our data demonstrates that in the wake of Dobbs v. Jackson Women's Health Organization (2022), the number of vasectomies among men with no children significantly increased after the court decision. There were significant increases in the number of vasectomies within different age groups of

men without children following the decision. Future aims of this study will seek to create statistical models to determine the underlying reasons that influenced the observed change in frequency of vasectomies following the court decision in men without children.



Abstract 93. Figure 1. Comparing the frequency of vasectomies performed in men with no children by age quartile.

Abstract 94

Continued evaluation of three validated comorbidity indices to predict postoperative outcomes in frail urology patients: Is urethroplasty any different?

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Introduction: Patients with increasing comorbidities are at risk of poor postoperative outcomes. The most common frailty indices used to identify high risk patients include the Charlson Comorbidity Index (CCI), Elixhauser/Van Walraven Index (VWI), and modified frailty index (mFI). Other preoperative scores have been developed to predict stricture recurrence, but not overall complications. This study examines the ability of the CCI, VWI, and mFI to predict outcomes after urethroplasty.

Methods: We identified all patients undergoing urethroplasty for urethral stricture from the State Inpatient Database and State Ambulatory Surgery and Services Database for Florida (2010–2015) and California (2010–2011). We calculated CCI, VWI, and mFI scores for each patient. Two methods were used to calculate the mFI, one based on the number of chronic conditions (mFI-NChronic) and one based on the diagnoses present on admission (mFI-DX). We extracted 30-day ER services, 30-day inpatient readmissions, and 90-day Clavien-Dindo III–V complications. We constructed receiver operating characteristic (ROC) curves and compared area under the curve (AUC).

Results: We identified 908 patients. Increasing CCI, VWI, and mFI-NChronic scores were associated with increased adverse events; however, ROC curves showed poor performances predicting adverse outcomes for all four indices. No index achieved an AUC, including the 95% confidence interval, greater than 0.70. The mFI-DX was particularly poor at predicting 90-day Clavien-Dindo III-V complications (AUC 0.49, 95% CI 0.43–0.55, p<0.01).

Conclusions: The CCI, VWI, and mFI have poor ability to identify patients who had an adverse event after urethroplasty. Our results support the need for a urology-specific comorbidity index to better identify at-risk patients.

Abstract 95

Erectile dysfunction and Peyronie's disease diagnosis rates after penile fracture: A retrospective claims database cohort analysis

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Introduction: Penile fracture (PF) is a rare urologic emergency, with an estimated incidence of 500–600 PFs per year. Delays in repairs increase the risk of developing erectile dysfunction (ED) and Peyronie's disease (PD). Our objective was to analyze the rates of ED and PD following a PF using a large, multi-institutional claims database.

Methods: We conducted a cohort analysis utilizing the TriNetX Research database. The inclusion criteria included men ages 15 or older with a diagnosis of PF and any office visit within five years of the PF. Our exclusion criteria included any prior ED diagnosis, prescription of erectile aids, or penile prosthesis placement. Our primary outcome was the diagnosis of ED or prescription of phosphodiesterase-5 inhibitors (PDE5i) within five years. A secondary analysis was used to assess rates of PD following a PF. Subgroup analyses were performed for age and the impact of initial repair. Propensity-matching was performed to compare men with and without PF by calculating risk ratios (RR).

Results: A total of 1242 men were identified with a diagnosis of PF and subsequently matched to men without a PF, resulting in equal cohorts of 1227 men. Men with a history of PF were more likely to receive a diagnosis of ED or require PDE5i (RR 3.18, 95% CI 2.30–4.40). Men over the age of 45 years who had a PF were more likely to develop ED or require treatment (RR 1.65, 95% CI 1.14–2.39). Men who did not undergo immediate repair had higher rates of ED diagnoses or treatment (RR 1.84, 95% CI 1.22–2.78). Rates of PD diagnoses were significantly higher in men with a history of PF (6.1% vs. 0%). Rates of PD were significantly lower if immediate repair of the fracture was performed (RR 0.20, 95% CI 0.10–0.41). Men over the age of 45 years with a history of a PF were more likely to develop PD within five years compared to men under the age of 45 years with a history of PF (RR 3.73, 95% CI 1.94–7.16).

Conclusions: We found that a PF increases the risk of both ED and PD, especially for those treated with conservative measures or over the age of 45 years. Consequently, it is essential to follow up with these patients in the long term and survey potential adverse side effects relating to sexual function that may arise.

Abstract 96 - WITHDRAWN

Abstract 97

Antihypertensive medications and erectile dysfunction: Is this association accurate?

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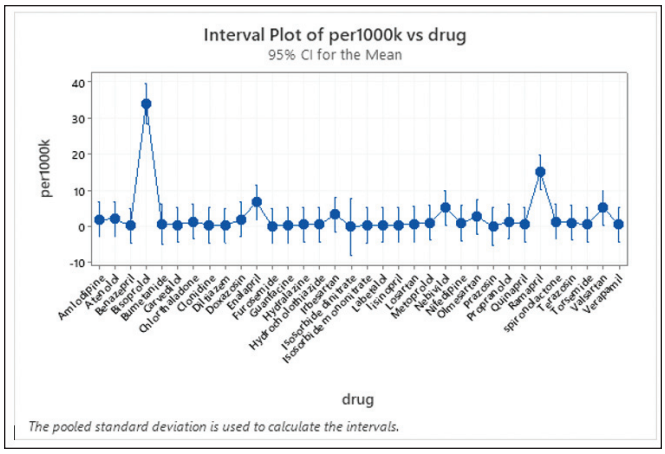
Introduction: The association between erectile dysfunction (ED) and antihypertensive medications (AM) has been previously described with varying results in small or single-center data sets. Using large, post-marketing surveillance databases allows one to study drug side effects across patients in a much larger and more diverse sample size. Our study sought to investigate AMs and their medication classes to determine the incidence of ED. Our hypothesis was that thiazide diuretics and beta blockers would have significantly higher rates of reported ED than other AM classes due to the classic association with these medications and ED.

Methods: We used the U.S. government Medical Expenditure Panel Survey maintained by the Agency for Healthcare Research and Quality to determine the total number of patients on each medication each year. The total number of ED adverse events reported per year per medication was accessed via the Food and Drug Administration's adverse event reporting database (FAERS). Date ranges were 2013–2020. We reviewed all substantive outpatient AMs and compared them to one another, as well as across the class with regards to reported ED rates.

Results: We found that a higher incidence of ED adverse events were reported with ramipril and bisoprolol — 15 events per 100 000 patients and 34.1 events per 100 000 patients, respectively. Interestingly, fewer adverse events (0.4 events per 100 000 patients) were reported for lisinopril. We did recognize differences among AM classes via Kruskal-Wallis analysis; however, the structure of our study was not able to distinguish which class was different in rates of ED as a result of the large number of drugs included. Reported ED rates increased over the study period, with 2020 having the most ED reports; however, most medications reported fewer than 100 adverse events over an eight-year time period, with many medications having tens of millions of patients taking them a year.

Conclusions: Higher rates of reported ED were seen with ramipril and bisoprolol and lower rates found with lisinopril than in other AMs. Differences among medication classes were not identified. The infrequent reporting of ED with AMs questions the existing dogma that AMs cause ED and further consideration should be given to the causality of this association.



Abstract 97. Figure 1. Incidence of ED per 100 000 by each antihypertensive medication.

Abstract 98

Important clinical differences among alpha-blockers demonstrated in post-marketing event rates

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Introduction: Ongoing monitoring of adverse events after medication approval can often provide a better gauge of medication side effects using a larger, more diverse sample size. These strategies can investigate whether certain medications have higher rates of adverse events or reveal a particularly concerning event. We sought to understand differences in post-marketing adverse event rates among medications in the alpha-blocker class to assess each individual medication's real-world safety profile.

Methods: The alpha blockers doxazosin, alfuzosin, tamsulosin, prazosin, and terazosin were studied. We used publicly available data from the Medical Expenditure Panel Survey in the United States to record the total number of patients on each medication. The Food and Drug Administration's adverse event reporting database (FAERS) was accessed to determine the total number of adverse events reported per year per medication. Date ranges of 2013–2020 were used for both databases. The primary outcome was the reported incidence of a side effect per 100 000. A general linear model was used to assess the incidence as a function of drug, type of side effect, and an interaction between drug and side effect. Tukey's test was used for multiple comparisons.

Results: Results are reported in Figure 1 and Table 1. The following were all statistically significant. There was a main effect of drug with doxazosin having a higher incidence of side effects than alfuzosin, which in turn, had a higher incidence than prazosin, tamsulosin, and terazosin; these latter three were not different from one another. In addition, alfuzosin was more likely to cause a fall than doxazosin but for almost all other side effects doxazosin caused more than alfuzosin. Floppy iris syndrome and premature ejaculation had very few reports and were therefore not further analyzed.

Conclusions: It is expected that doxazosin would have higher rates of vascular side effects given its selectivity, clinical use as an anti-hypertensive, and the predictions from the package inserts. Alfuzosin had higher than expected probability of dizziness, hypotension, syncope, dyspnea, and falls relative to the other alpha-blockers based on the package insert, excluding doxazosin. This was unanticipated given that alfuzosin was marketed to be a uroselective medication and hence promoted as conferring fewer systemic effects.

Abstract 98. Table 1. Comparison of side effects among alpha-blockers (package insert and post-marketing data)

Medication/SE	Package insert (%)	Relative percent of package insert vs. doxazosin	Post marketing (incidence per 100 000)	Relative incidence post marketing vs. doxazosin	P-values of post-marketing incidence
Headache					
Alfuzosin	3	0.3	0.9	0.25	0.154
Doxazosin	9.9	1	3.5	1	
Prazosin	7.8	0.78	0.7	0.2	0.040
Terazosin	1.1	0.11	0.3	0.85	0.008
Tamsulosin	19.3	1.94	0.6	0.17	0.038
Dizziness					
Alfuzosin	5.7	0.3	3.5	0.72	0.999
Doxazosin	19	1	4.8	1	
Prazosin	7.8	0.41	1.9	0.39	0.033
Terazosin	9.1	0.47	1.0	0.2	0.000
Tamsulosin	14.9	0.78	2.1	0.43	0.085
Hypotension					
Alfuzosin	0.4	0.23	5.1	0.75	0.915
Doxazosin	1.7	1	6.8	1	
Prazosin	1-4	0.58	2.9	0.42	0.000
Terazosin	0.6	0.35	0.5	0.07	0.000
Tamsulosin	0.4	0.23	1.1	0.16	0.000
Syncope					
Alfuzosin	0.2	0.28	2.5	0.45	0.046
Doxazosin	0.7	1	5.5	1	
Prazosin	1-4	1.42	0.8	0.14	0.000
Terazosin	1	1.42	0.6	0.10	0.000
Tamsulosin	0.4	0.23	1.1	0.16	0.000
Falls					
Alfuzosin	Not reported	Not reported	6.1	2.9	0.000
Doxazosin	Not reported	Not reported	2.1	1	
Prazosin	Not reported	Not reported	0.9	0.43	0.998
Terazosin	Not reported	Not reported	1.0	0.48	0.819
Tamsulosin	Not reported	Not reported	0.4	0.19	1.000

Doxazosin has been set mathematically as 1 for the relative comparisons.

Abstract 98. Table 1 (cont'd). Comparison of side effects among alpha-blockers (package insert and post-marketing data)

Medication/SE	Package insert (%)	Relative percent of package insert vs. doxazosin	Post marketing (incidence per 100 000)	Relative incidence post marketing vs. doxazosin	P-values of post-marketing incidence
Dyspnea					
Alfuzosin	Not reported	Not reported	2.5	0.55	0.668
Doxazosin	2.6	1	4.5	1.0	
Prazosin	1-4	0.38	0.6	0.13	0.000
Terazosin	1.7	0.65	0.6	0.13	0.000
Tamsulosin	Not reported	Not reported	1.0	0.22	0.001

Doxazosin has been set mathematically as 1 for the relative comparisons.

Abstract 99

A quantitative analysis of qualitative research in urological literature

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Introduction: Qualitative research is infrequently used in the clinical sciences but is an important research methodology to explore patient experiences, healthcare behaviors, and any phenomena that are challenging to characterize numerically. The aim of this study was to evaluate the frequency of qualitative research across urological publications.

Methods: All journal titles in the Journal Citation Reports (JCR) database in the category of urology & nephrology of indexed (SCIE) journals were exported. Journals were included if they were primarily related to urology and eliminated if they were nephrology journals or primarily review-focused. A Boolean search in the Medline database for each journal was executed with the search string: "Journal Title" AND "qualitative research OR interview, excluding commentaries, editorials, and systematic reviews." The total number of articles within each journal, excluding commentaries, editorials, and reviews, was obtained and used as a denominator, with updated search current to January 2023. Articles were screened for qualitative original research including focus groups, unstructured interviews, and narrative assessment of participant experiences. Data were analyzed in SPSS 26 using unpaired t-tests and ANOVA and presented as mean (standard deviation).

Results: Forty-one urology journals were identified. After database search, 296 qualitative original research papers were identified. This represented an average percentage across all original research publications in urology journals of 0.32% (0.53). There was no difference across JCR journal impact quartile in percentage of qualitative publications ($F_{3,36}=1.74$, $p=0.17$). The journals with percentage of qualitative publications greater than 1% included Sexual Medicine (2.0%), Bladder Cancer (2.4%), Aging Male (1.1%), and Neurourology (1.1%). Keywords from each qualitative article were extracted, with 1296 terms total. The most frequently occurring terms included 'qualitative research' (n=59), 'prostate cancer' (n=31), 'quality of life' (n=30), and 'erectile dysfunction' (n=29).

Conclusions: Qualitative research is underrepresented in urologic publications, making up less than 0.5% of all publications in indexed sources. Journals most frequently publishing qualitative research in urology include sexual medicine journals and oncological publications. This study provides important insight into the gaps in the urologic literature with respect to qualitative research and suggests that further studies in urology using qualitative methodology are an important opportunity for urological research.

Abstract 99. Table 1. Total and percentage of qualitative articles published in urological journals

	Indexed sources	Emerging sources	p
Average number of qualitative articles per journal	5.4	2.7	0.11
Average number of articles per journal (denominator)	3969.2	858.8	0.03
Qualitative articles (%)	0.32	0.62	0.06
Range of qualitative articles (%)	0-3.85	0–6.7	n/a

Abstract 100

Impact of preoperative pelvic floor muscle training on postoperative erectile dysfunction in prostate surgeries: A systematic review

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Introduction: Postoperative erectile dysfunction (ED) can have a highly negative impact on the quality of life of patients undergoing prostate surgeries. The role of postoperative pelvic floor muscle training in improving the postoperative ED has been shown; however, there have been no synthesized forms of data on the impact preoperative pelvic floor muscle training (PPFMT) can have on ED. Moreover, (PPFMT) studies have been shown to be effective in the prevention of certain complications in various other fields (Table 1).

Methods: A systematic search was conducted on Medline, Embase, CINAHL, and Google Scholar with the guidance of a subject expert librarian. The only filter applied was articles in the English language. Quality assessment was undertaken using the Cochrane risk-of-bias tool for randomized control trials (RCTs) and the Ottawa New Castle tool.

Results: From the initial search yielding 342 results, seven articles met the inclusion criteria and moving further three studies (two RCTs and one non-randomized experimental study) were included. The two RCTs showed no significant impact of PPFMT on postoperative ED. PPFMTs were defined as 120 contractions per day for five weeks prior to surgery, and in the other one, two sessions included exercises and electromyographic biofeedback (Table 2); however, only the non-randomized experimental study reported a significant difference in postoperative ED rate between the intervention (5%) vs. the control (48.6%) group (Table 2).

Conclusions: The findings from this systematic review reveal mixed findings on the effect of PPFMT on postoperative ED, but PPFMT has shown to be promising in the prevention of complications in other surgical fields. We note that the studies included in this review lack some major components, such as knowledge assessment, and subjective and objective assessment, along with characteristics of sessions (number, duration, intensity, interval to surgery, biofeedback). These components play a crucial role in the effectiveness of the PPFMT programs, specifically in strengthening the pelvic floor muscles and improving outcomes related to ED. Further research with consideration of the characteristics of successful studies is warranted.

Abstract 100. Table 1. Characteristics of preoperative pelvic floor muscle training (PPFMT) used in other fields

Field of study | author	Participants | study design	Aim of the study	Intervention	Outcomes measures
OB-Gyn Oliveira et.al (2007)	N=46 Patient underwent PFMT Control (n=23) Case (n=23) Comparative, non- randomized, longitudinal, controlled study.	To observe the effectiveness of PFMT in 46 nulliparous pregnant women to improve UI after delivery.	Duration: 12 consecutive weeks from gestation period. Each session=4 series of 10 contractions, each lasting 6 secs followed by 12 secs of rest Patients exercised once at home/ daily (written instructions provided).	PFMT with biofeedback was effective by 47.4% in strengthening and increasing PM pressure as compared to 17.4% in the control group
Pediatrics Jacoben et al (2021)	N=46 children participated in the study Longitudinal, interventional study	Evaluate the significance of biofeedback assisted PFMT in children with DV	Duration: 5 session/week until no change observed in physiotherapist assessment Session characteristic: Unknown	Outcome in voiding pattern Recovery patterns for DV: Improvement from DV % Complete recovery: 12 Significant improvement: 50 Partial improvement: 23
General surgery Asong et al (2022)	N=104 Patient underwent PFMT Control (n=54) Case (n=50) Single-blind, randomized control trial	To observe the effectiveness of PFMT on LARS in patients who underwent total TME for rectal cancer	Duration:12 weeks of PFMT Session: Consisted of 9 different individual patterns: 1–6 weeks: PFMT/once a week 7–12 weeks: PFMT/3 times a week Characteristics: Unknown	The patient who underwent PFMT showed improvement in LARS at 4 and 6 months Improvement rate of PFMT In LARS: Interval: Control%: Case% 4 months: 19.6: 38.3 6 months: 34.9: 47.8

Abstract 100. Table 2. Summary of findings of included studies: Effect of preoperative pelvic floor muscle training (PPFMT) on postoperative erectile dysfunction

First author (year) | country	Participants | design	Intervention	Measurement/ assessment tool	Outcome
Milios et al (2020) Australia	N=97 Men scheduled for RP Case (n=50) Control (n=47) RCT	Duration: 5 weeks prior to surgery 1 session (30 min PFMT)/ day Each session=6 sets of PFMT exercises Each set=10 fast and 10 slow contractions with an equal rest time A total of 120 contractions per day	ED: IIEF	Overall improvement in ED but no difference between both groups at 2-,6-,12-week follow ups (p=0.450) (No IIEF score reported)
de Lira et al (2019) Brazil	N=31 Men scheduled for RP Case (n=16) Control (n=15) RCT	Preoperative 2 PFMT session pre-surgery guided by a therapist. Duration: unknown Session characteristics: unknown Postoperative PFMT resumed after urethral catheter removal Duration: 3 times/day with increasing intensity for 3 months by a guided therapist Session characteristics: unknown	ED: IIEF MS: electromyographic recordings.	Overall, no significant improvement between both groups at 0 and 3 months followups (p=0.745) IIEF (control): 5.73±7.43 IIEF (case): 6.70±6.68
Perez et al (2018) Brazil	N=52 men scheduled for RP Case (n=20) Control (n=31) Non-RCT	Duration:10 physiotherapy sessions in 10 consecutive working days (time unknown pre-surgery). Session characteristics: Unknown	ED:IIEF and NEBD	Significant difference in postoperative ED rate in case (5%) vs. control (48.6%) (p=3.1 × 10−4).