



# • FREQUENCY OF EJACULATORY DISORDERS ASSOCIATED WITH TAMSULOSIN THERAPY IN PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA

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## • Hypothesis / aims of study

Benign prostatic hyperplasia (BPH) is very common condition in elderly male. BPH, overactive bladder, urinary tract infection, tumors, stones, or functional problems of the lower urinary tract are some of the conditions that can cause LUTS.  $\alpha$  1-Adrenoceptor antagonists are routinely used to treat BPH, and urologists are familiar with their safety profiles. It has been noticed that many patients having LUTS due to BPH also experience ED, causing problems in their sexual life but this aspect has been ignored many times by urologists, which adds to the patient burden. Despite the good tolerability of this drug, it still has got high chance of ED. So this study was designed to determine the frequency of ejaculatory dysfunction in our population.

## • Study design, materials and methods

It's a cross sectional study, conducted from 1st January 2022 to 31 December 2022. All adult male patients presented to Urology OPD with Lower Urinary Tract Symptoms were included in the study. After a detail history, examination including digital rectal examination (DRE) and investigations like Urine routine examination, urine culture, serum PSA, renal function tests and Ultrasound Kidney, Ureter, Bladder, Prostate and Pre and Post void residual urine the patients were advised alpha adrenergic blocking agents like Tamsulosin 0.4 mg OD at night. Erectile dysfunction was assessed of all patients before starting therapy and after two 2 months. Retrograde ejaculation was assessed by taking the history from the patient and examining first voided urine after ejaculation for sperm. The data was collected in a pre-designed proforma. All statistical analyzes were performed using SPSS software version 20. Data from the study was analyzed and compared using 73 descriptive statistics (frequency, percentage, mean  $\pm$  SD). Mean and standard deviations were calculated for quantitative variables like age, BP, BMI, PSA level, voided urine volume, and residual urine volume. Frequency and percentages were calculated for erectile dysfunction, ejaculatory dysfunction, and complications of ejaculation. Ejaculatory dysfunction was stratified against age, blood pressure, BMI, PSA level, voided urine volume, residual urine volume, erectile dysfunction, ejaculatory dysfunction, and complications of ejaculation.

## • Results

Mean age of patients was 52 years with a standard deviation  $\pm$  7.28. Mean systolic blood pressure was 124.83 with SD  $\pm$  9.91, mean diastolic blood pressure was 80 with SD  $\pm$  23, mean BMI was 28 Kg/m<sup>2</sup> with SD  $\pm$  3.91, Mean prostate-specific antigen was 1.97 ng/dl with SD  $\pm$  3.18, Mean voided urine volume was 292.75 ml with SD  $\pm$  150.69, Mean residual volume was 32.28 ml with SD  $\pm$  31.28. The frequency of ejaculatory disorders and erectile dysfunction among 111 patients was analyzed as 72(65%) and 21(19%) respectively. Stratification of ejaculatory disorders and erectile dysfunction concerning age, blood pressure, BMI, PSA level, voided urine volume, residual urine volume, erectile dysfunction, and complications of ejaculation is best described in tables attached.

## • Interpretation of results

A total of 111 patients were included in the study. Mean age was 52 years with a standard deviation  $\pm$  7.28. Ejaculatory disorders were observed in 72(65%) patients while 21(19%) patients had erectile dysfunction. The total incidence of ejaculatory dysfunction (EjD) after 12 weeks of follow up was 13.4%. The incidence of seven distinct types of ejaculatory dysphoria (EjD) were found in 2.4%, 3.1%, 3.9%, 3.9%, 6.3%, 7.1%, and 3.1% of cases, respectively. These types of EjD include decreased frequency, delay, increased dryness, decreased strength/force, reduced volume, less pleasure, and pain during ejaculation. IPSS responders had higher baseline EjFD scores than non-responders (26.09 vs. 24.06, P=0.03). Among IPSS respondents, a decrease in EjFD score occurred more frequently. A smaller prostate, higher baseline MSHQ totals, higher EjFD scores, and milder lower urinary tract symptoms were associated with a greater incidence of EjD.

TABLE 1: DEMOGRAPHICS AND BASELINE PARAMETERS (n=111)

Parameters	FREQUENCY	PERCENTAGE
Age 41-60 years	107	96%
61 years and above	4	4%
Blood pressure $\leq$ 120/80	53	48%
>120/80	58	52%
Body mass index $\leq$ 25 Kg/m <sup>2</sup>	52	47%
>25 Kg/m <sup>2</sup>	59	53%
PROSTATE SPECIFIC ANTIGEN $\leq$ 3 ng/dl	68	61%
>3 ng/dl	43	39%
VOIDED URINE VOLUME $\leq$ 300 ml	70	63%
>300 ml	41	37%
RESIDUAL VOLUME $\leq$ 30 ml	73	66%
>30 ml	38	34%

• TABLE 2: EJACULATORY DISORDERS AND ERECTILE DYSFUNCTION (n=111)

EJACULATORY DISORDERS	FREQUENCY	PERCENTAGE
Ejaculatory Dysfunction Yes	72	65%
No	39	35%
Erectile Dysfunction Yes	21	19%
No	90	81%

• TABLE 3. EJACULATORY COMPLICATIONS (n=72)

EJACULATORY COMPLICATIONS	FREQUENCY	PERCENTAGE
Decrease frequency	2	3%
Pain with ejaculation	1	2%
Delay in ejaculation	10	13%
Decrease ejaculation strength	25	35%
Decrease ejaculatory volume	34	47%

## • Concluding message

The study concludes that the frequency of ejaculatory disorders associated with tamsulosin therapy for BPH was 65%, and erectile dysfunction was observed in 19% of the patients.