

SILODOSIN CAUSES IMPAIRED EJACULATION AND ENLARGEMENT OF VESICULA SEMINALIS IN SEXUALLY ACTIVE MEN TREATED FOR LOWER URINARY TRACT SYMPTOMS SUGGESTIVE OF BENIGN PROSTATIC HYPERPLASIA

Hypothesis / aims of study

Silodosin is a recently developed α_1 -blocker with higher selectivity for α_{1a} -adrenoreceptors. Abnormal ejaculation is the most pronounced adverse effect and data regarding erectile and ejaculatory functions in potent men is scarce. We aimed to evaluate the sexual side-effects including ejaculation under silodosin treatment in potent patients with regular sexual activity and possible alterations in seminal vesicle volume with this prospective study.

Study design, materials and methods

Sexually active patients ≥ 40 years old with moderate to severe LUTS were enrolled after approval of the institutional review board. International Prostate Symptom Score and Quality of Life (IPSS-QoL), International Index of Erectile Function (IIEF) questionnaire, ejaculation state and seminal vesicle volumes measured by transrectal ultrasonography (Figure 1) were determined at study entry and silodosin 8mg/day was prescribed for four weeks. Alterations in IPSS-QoL, all domains of IIEF, ejaculation state and seminal vesicle volumes were evaluated after silodosin treatment.

Results

Thirty patients were included and mean age was 56.7 ± 6.9 (44-70). IPSS-total, IPSS-storage and IPSS-voiding subscores and QoL were significantly improved with treatment. Despite a slight decrease in erectile function domain of IIEF (26.7 ± 1.9 vs. 22.9 ± 7.5 , $p < 0.05$), no significant change was determined for orgasmic functions, sexual desire, intercourse satisfaction and overall satisfaction. 90% of patients (27 out of 30) had impaired ejaculation and seminal vesicles were significantly enlarged at the end of treatment (8.1 ± 6.4 cc vs 16.4 ± 8.2 cc, $p < 0.001$) (Table 1).

Interpretation of results

Figure 1. Description of the 'ellipsoid/prolate spheroid ($d_1 > d_2 = d_3$)' mathematical formula ($d_1 \times d_2 \times d_3 \times 4/3 \times \pi$) for calculating seminal vesicle volumes [15]. d1: Maximum longitudinal diameter of the seminal vesicle; d2: Maximum anterior-posterior diameter of the seminal vesicle; d3: Assumed as long as d2 or the calculation of seminal vesicle volume.

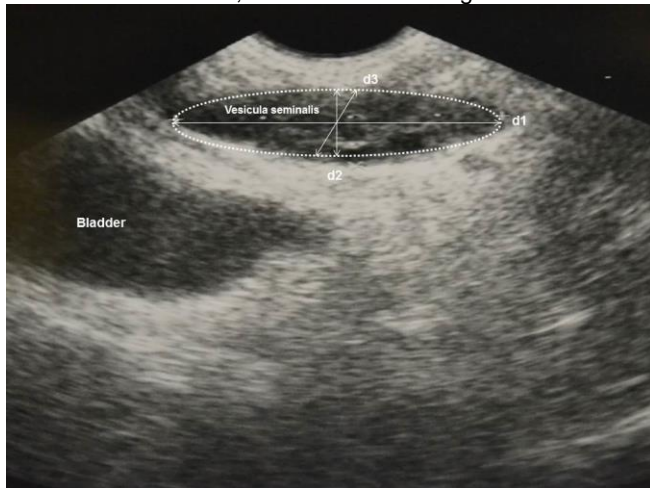


Table 1. Comparison of the evaluated parameters at admission and after four-week silodosin therapy.

Variable	At admission	After therapy	p
IPSS-total	14.4 \pm 6.4	11.1 \pm 7.3	0.001
IPSS-voiding	9.1 \pm 4.8	6.9 \pm 4.8	0.003
IPSS-storage	5.3 \pm 2.6	4.2 \pm 3.5	0.024
QoL	3.2 \pm 1.4	2.3 \pm 1.4	0.003
IIEF-EF	26.7 \pm 1.9	22.9 \pm 7.5	0.007
IIEF-OF	7.8 \pm 2.6	6.9 \pm 2.9	0.255
IIEF-SD	7.2 \pm 1.8	7 \pm 2.4	0.686
IIEF-IS	9.8 \pm 2.6	9.4 \pm 3.3	0.616
IIEF-OS	7.7 \pm 2	7 \pm 2.7	0.255
Intercourse frequency (monthly)	5 \pm 2.2	4.8 \pm 1.9	0.699
Seminal vesicle volume (cc)	8.1 \pm 6.4	16.4 \pm 8.2	<0.001

Abbreviations : *IPSS* – International prostate symptom score; *QoL*-Quality of Life; *IIEF*-International Index of Erectile Function; *EF*-Erectile Functions; *OF*-Orgasmic functions; *SD*-Sexual Desire; *IS*-Intercourse Satisfaction; *OS*-Overall Satisfaction

Concluding message

Impaired ejaculation is a major concern for sexually active men treated with silodosin. Enlargement of seminal vesicles may represent for the loss of seminal emission and accumulation of seminal vesicle secretion. Further studies are required for better clarifying the effects of silodosin on sexual functions including ejaculatory functions.

Disclosures

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