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CLINICAL EFFICACIES AND IMPACTS ON SEXUAL FUNCTION OF ALPHA-1A/D SELECTIVE BLOCKERS IN PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA

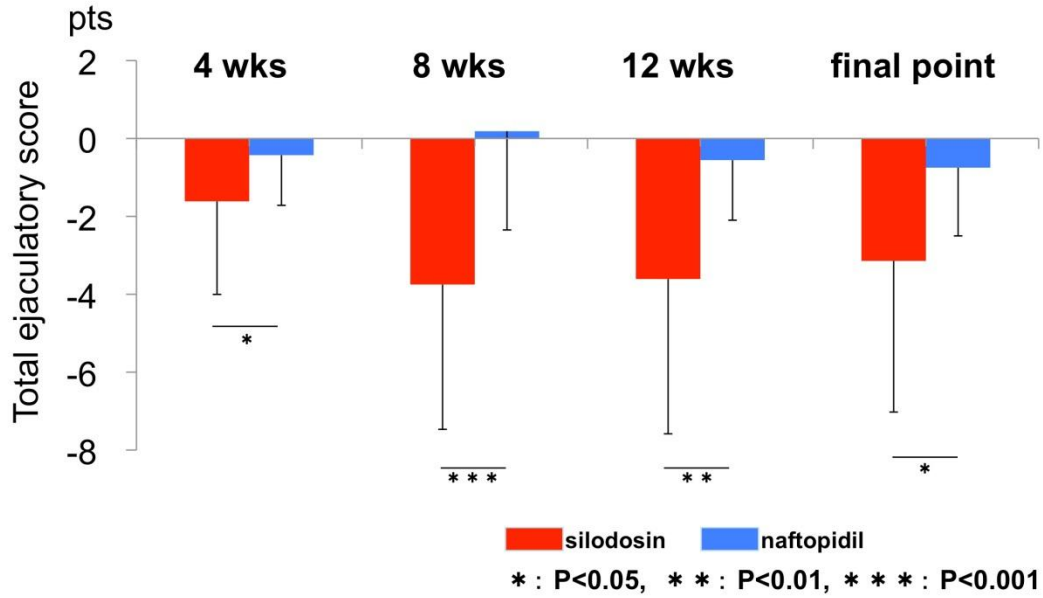
Hypothesis / aims of study

Alpha-1 blockers are the first option for the medical treatment of benign prostatic hyperplasia (BPH), and differ in their likelihood of causing abnormal ejaculation and sexual dysfunction, depending on their affinity of alpha-1 adrenoceptor subtypes. A new alpha-1 blocker, silodosin is 162 times more selective for alpha-1A than for alpha-1B, and is approximately 55 times more selective for alpha-1A than for alpha-1D [1]. In contrast, naftopidil is an alpha1D-selective blocker, which has been recently reported to less likely induce ejaculatory disorders [2].We conducted a multicenter randomized trial to evaluate clinical efficacies and impacts on sexual function of alpha-1A and alpha-1D selective blockers in patients with BPH.

Study design, materials and methods

Eighty-nine patients with LUTS/BPH who had International Prostate Symptom Scores (IPSS) of 8 or more were randomly assigned to receive silodosin (8 mg/day, n = 48) or naftopidil (75 mg/day, n = 41). Before and 4, 8, and 12 weeks after treatment, IPSS, and QOL were employed to assess LUTS. Also, IIEF-5 and an original questionnaire were used to evaluate erectile function and ejaculation, respectively.

Figure 1. Changes from the baseline of total ejaculatory score after treatment. A significant impairment of the score was observed during the study period in the silodosin group.



Results

Both silodosin and naftopidil significantly improved total IPSS at 4, 8, and 12 weeks after treatment (all, p<0.001). Changes from the baseline of total IPSS in silodosin group seemed to be larger than those in naftopidil group. However, they did not reach a statistical significance. Efficacies of silodosin on voiding symptoms at 4 weeks and the final point of treatment were better, compared with those of naftopidil (both, p<0.05). In contrast, changes from the baseline of storage symptoms in IPSS in naftopidil group seem to be larger than those in silodosin group. However, they did not reach a statistical significance. Both silodosin and naftopidil significantly improved QOL score at 4, 8, and 12 weeks after treatment. Changes from the baseline of QOL score at 4 weeks and the final point after treatment in silodosin group were significantly larger than those in naftopidil group (p<0.05). No significant changes of Qmax and PVR after treatment were observed in both groups.

Although changes from the baseline of total IIEF-5 at 8, 12 weeks and the final point of treatment in silodosin group seemed to be larger (more deteriorated) than those of naftopidil group, they did not reach a statistical significance. However, if we look at question 5 of IIEF-5, “When you attempted sexual intercourse, how often was it satisfactory for you?”, silodosin significantly more impaired the score at 8 and 12 weeks after treatment, compared with naftopidil (both, p<0.05). A significant impairment of the ejaculation score was observed during the study period in the silodosin group (Figure 1). Self-assessed ejaculatory volume significantly more decreased at 8, 12 weeks and the final point of treatment in silodosin group (p<0.01). In contrast, no significant changes were identified in naftopidil group. Orgasm and satisfaction on ejaculation at 8 weeks after treatment in the silodosin group was significantly inferior to those in the naftopidil group (both, p<0.05).

Interpretation of results

Efficacies on LUTS of these blockers are almost equivalent, with a small advantage of silodosin on voiding symptoms. A significant impairment of ejaculation (decreases of ejaculatory volume, orgasm and satisfaction) was observed in the silodosin group (p<0.01).

Concluding message

Alpha1D-selective blockers may possess superior property of preserving sexual function, compared with alpha1A-selective blockers.

References

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Was informed consent obtained from the patients?	**Yes**