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COMPARISON BETWEEN ALPHA-BLOCKER MONOTHERAPY AND 5-ALPHA REDUCTASE INHIBITOR MONOTHERAPY FOLLOWING COMBINATION THERAPY IN BENIGN PROSTATIC OBSTRUCTION

Hypothesis / aims of study

No guideline on which drug should be discontinued after combination therapy (CT) of alpha-blocker (AB) and 5-alpha reductase inhibitor (5ARI) in men with benign prostatic obstruction.[1,2,3] To compare efficacy of AB monotherapy, 5ARI monotherapy and CT in men with symptom improvement after 9-month CT.

Study design, materials and methods

Men aged ≥45 years with IPSS QoL score ≤3 after ≥ 9-month of CT were randomly assigned to AB monotherapy, 5ARI monotherapy or CT in 1:1:1 ratio. After 12 months, changes in the IPSS, ICIQ male LUTS questionnaire, voiding diary, Qmax/PVR, prostate volume and PSA were compared among groups. Treatment satisfaction and willingness to continue were also compared. For sub-analysis, patients were divided into two groups by prostate size of 40gm.

Results

Of a total of 308 men randomized (98 AB, 98 5ARI, 112 CT), 247 (82, 68, 97) completed the 12-month therapies. Analysis included 298 (96, 91, 111) and men with prostate volume ≥40gm were 76 (26, 22, 28). Among baseline characteristics, IPSS QoL score was significantly higher in 5ARI group. After 12 months, changes in the IPSS, ICIQ male LUTS questionnaire, voiding diary and Qmax/PVR were comparable among groups (Table 1). Prostate volume and PSA significantly increased in AB compared with other groups. Change in treatment satisfaction was significantly favorable in AB compared with CT group (AB vs. 5ARI p=1.1085, AB vs. CT p=0.0071, 5ARI vs. CT p=0.2139). Significantly more patients in CT wanted to continue the therapy than 5ARI (81% AB, 68% 5ARI, 86% CT, p=0.0036). Prostate size did not affect the results. (Prescribed drugs are shown in table 2.)

Interpretation of results

There was no significant difference in symptom changes among AB, 5ARI and CT groups. However, in 5ARI group, no significant change in symptoms was observed and more patients did not want to continue therapy.

Concluding message

AB monotherapy after CT or continuing CT seems to be more beneficial than 5ARI monotherapy after CT in men with symptom improvement after CT. Efficacy of 5ARI monotherapy after CT needs more investigation.

Table 1. Comparison of changes in IPSS, ICIQ male LUTS, voiding diary, Qmax/PVR, prostate volume and PSA

	AB		5ARI		CT		p-value
	Baseline	12-month	Baseline	12-month	Baseline	12-month	
IPSS							
total	9.3±6.0	7.6±4.6*	9.8±4.9	9.5±5.8	9.7±5.0	8.1±5.6*	0.1597
voiding	5.2±4.2	3.9±3.1*	5.6±3.8	5.7±4.3	5.7±3.9	4.79±4.2*	0.0622
storage	4.0±2.5	3.7±2.2	4.1±2.3	3.6±2.1	4.0±2.1	3.3±2.2*	0.4820
QoL	1.9±0.9	1.8±1.1	2.2±0.8	2.2±1.2	1.9±0.9	1.8±1.1	0.6021
ICIQ male LUTS							
v-sum	5.1±3.7	4.1±2.9*	5.4±3.6	5.6±3.5	6.0±3.7	4.8±3.9*	0.0691
i-sum	1.4±1.8	1.0±1.5*	1.2±1.5	1.7±1.4	1.8±2.2	0.9±1.6*	0.0558
Voiding diary							
frequency/24hr	7.8±1.9	7.5±2.1	7.9±1.9	7.6±2.0	7.8±1.9	7.2±2.1*	0.6531
nocturia/24hrs	1.6±1.0	1.4±1.0	1.4±1.0	1.2±0.8	1.5±1.1	1.1±0.8*	0.1540
urgency/24hrs	0.5±1.6	0.2±0.6	0.8±1.9	0.4±1.1	0.4±0.8	0.4±1.1	0.9853
Qmax	14.7±7.4	14.0±6.2	15.4±8.2	14.1±6.6	14.2±7.6	13.9±5.6	0.6598
PVR	34.0±39.2	40.8±48.3*	36.9±45.8	34.6±30.8	30.9±28.3	41.6±48.7	0.3554
Prostate volume	34.7±18.4	41.1±19.5*	34.9±13.8	33.9±12.3	36.1±16.1	35.1±14.3	<0.001†
PSA	1.4±1.8	2.4±1.8*	1.2±0.9	1.4±1.3*	1.7±1.8	1.6±2.0	<0.001§

p-value=Kruskal-Wallis test,* p<0.05 comparison between baseline and 12-month within group, †AB vs. 5ARI p<0.0001, AB vs. CT p<0.0001, 5ARI vs. CT p=1.000, §AB vs. 5ARI p<0.0001, AB vs. CT p<0.0001, 5ARI vs. CT p=0.1430

Table 2. Prescribed drugs

	Alfuzosin	Tamsulosin	Doxazosin	Terazosin	Silodosin	Total
Finasteride	49 (16.4%)	43 (14.4%)	15 (5.0%)	12 (4.0%)	4 (1.3%)	123 (41.3%)
Dutasteride	79 (26.5%)	77 (25.8%)	12 (4.0%)	5 (1.7%)	2 (0.7%)	175 (58.7%)
Total	128 (42.9%)	120 (40.3%)	27 (9.1%)	17 (5.7%)	6 (2.0%)	298 (100%)

References

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