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Effect of dutasteride, tamsulosin and the combination on patient-reported quality of life and treatment satisfaction in men with moderate-to-severe benign prostatic hyperplasia: 4-year data from the CombAT study

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Effect of dutasteride, tamsulosin and the combination on patient-reported quality of life and treatment satisfaction in men with moderate-to-severe benign prostatic hyperplasia: 4-year data from the CombAT study

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What's known

Current guidelines recommend alpha-blockers and 5-alpha reductase inhibitors, either alone or in combination, as appropriate treatment options for BPH/LUTS. Both classes of drug have been shown to improve QoL in addition to symptoms, although data on the effects of combination therapy on patient-reported QoL and treatment satisfaction are more limited.

What's new

In men with moderate-to-severe BPH, combination therapy with dutasteride plus tamsulosin significantly improves patient-reported, disease-specific QoL and treatment satisfaction compared with either monotherapy. The significant superiority ιθής Α of combination therapy over both monotherapies was observed at 2 years and was sustained out to 4 years.

Summary

Objective: To investigate the effect of combination therapy with dutasteride plus tamsulosin compared with each monotherapy on patient-reported health outcomes over 4 years in men with moderate-to-severe lower urinary tract symptoms (LUTS) due to benign prostatic hyperplasia (BPH).

Methods: CombAT was a 4-year international, double-blind, randomised, parallelgroup trial in men (n=4844) with moderate-to-severe symptoms of BPH and at increased risk of disease progression (age \geq 50 years, International Prostate Symptom Score [IPSS] \geq 12, prostate volume \geq 30 cc, serum prostate-specific antigen \geq 1.5 ng/ml to \leq 10 ng/ml and maximum urinary flow rate 5–15 ml/s with minimum voided volume \geq 125 ml). Subjects were randomised to receive 0.5 mg dutasteride, 0.4 mg tamsulosin or the combination once daily for 4 years. The primary endpoint at 4 years was the time to event and proportion of subjects with AUR or undergoing BPH-related prostate surgery. Secondary endpoints included the health-outcomes measures, BPH Impact Index (BII), IPSS question 8 (IPSS Q8) and the Patient Perception of Study Medication (PPSM) questionnaire.

Results: At 4 years, combination therapy resulted in significantly superior improvements from baseline in BII and IPSS Q8 than either monotherapy; these benefits were observed from 3 months onwards compared with dutasteride and from 9 months (BII) or 12 months (IPSS Q8) onwards compared with tamsulosin. Also at 4 years, the PPSM questionnaire showed that a significantly higher proportion of patients was satisfied with, and would request treatment with, combination therapy compared with either monotherapy.

Conclusions: Combination therapy (dutasteride plus tamsulosin) provides significantly superior improvements in patient-reported quality of life and treatment satisfaction than either monotherapy at 4 years in men with moderate-to-severe BPH symptoms.

Introduction

Lower urinary tract symptoms (LUTS) secondary to benign prostatic hyperplasia (BPH) have a significant negative impact on the quality of life (QoL) of affected men (1). Several studies have shown that increasing severity of LUTS is associated with decreasing QoL (2,3). Moderate LUTS have a similar negative impact on QoL (measured using Short-Form 12) to serious conditions such as diabetes, hypertension and cancer; severe LUTS have a similar negative impact to having a heart attack or stroke (2).

The major goals of BPH treatment include improvement of symptom scores, lowering the risk of disease progression, and improving patient-reported QoL and treatment satisfaction (4). The importance of patient perceptions and preferences is increasingly recognised as part of the clinical decision-making process (5-7), and patient satisfaction with treatment has implications for compliance and overall treatment success. Current guidelines recommend alpha-blockers and 5-alpha reductase inhibitors (5ARIs), either alone or in combination, as appropriate treatment options for BPH/LUTS (5,8). Both classes of drug have been shown to improve QoL in addition to symptoms (9-11), although data on the effects of combination therapy on patient-reported QoL and treatment satisfaction are more limited (12).

The Combination of Avodart[®] and Tamsulosin (CombAT) study was initiated to assess the efficacy and safety of combining dutasteride and an α-blocker (tamsulosin) in men (n=4844) with moderate-to-severe symptoms of BPH and at increased risk of disease progression (13). Two-year analyses of CombAT showed that dutasteride plus tamsulosin provided significantly greater improvements in symptoms, patient-reported QoL and treatment satisfaction versus either monotherapy (4,14).

At 4 years, combination therapy was significantly superior to tamsulosin monotherapy but not dutasteride monotherapy at reducing the relative risk of AUR or BPH-related surgery. Combination therapy was significantly superior to both monotherapies at reducing the relative risk of BPH clinical progression (defined as one of the following: symptom deterioration by IPSS ≥4 points on two consecutive visits; BPH-related AUR; BPH-related urinary incontinence; recurrent BPH-related

urinary tract infection or urosepsis; BPH-related renal insufficiency), and provided significantly greater symptom benefit than either monotherapy (15).

Here we present 4-year data on the effects of dutasteride plus tamsulosin compared with each monotherapy on the patient-reported health outcomes, International Prostate Symptom Score question 8 (IPSS Q8), BPH Impact Index (BII) and Patient Perception of Study Medication (PPSM).

Methods

The rationale and design of the CombAT study has been previously described in detail (13). Briefly, the study evaluated the efficacy and safety of combining the dual 5ARI dutasteride and the α -blocker tamsulosin in men with moderate-to-severe BPH symptoms (IPSS \geq 12) at increased risk of disease progression (age \geq 50 years, prostate volume \geq 30 cc, serum prostate-specific antigen [PSA] \geq 1.5 ng/ml to \leq 10 ng/ml and maximum urinary flow rate 5–15 ml/s with minimum voided volume \geq 125 ml). Following screening, all eligible patients were entered into a single-blind run-in period during which they received dutasteride and tamsulosin placebos for 4 weeks. All subjects were then randomised in a 1:1:1 ratio to receive once-daily treatment with 0.5 mg tamsulosin plus 0.4 mg tamsulosin, 0.5 mg dutasteride plus tamsulosin-matched placebo, or 0.4 mg tamsulosin plus dutasteride-matched placebo for 4 years.

Separate primary and secondary endpoints were analysed at 2 and 4 years (13). The primary endpoint for the pre-planned analysis at 2 years was mean change from baseline in IPSS; secondary endpoints at 2 years included changes from baseline in peak urinary flow, BII, IPSS Q8 and PPSM. At 4 years, the primary endpoint was the time to event and proportion of subjects with AUR or undergoing BPH-related prostate surgery; secondary endpoints included all 2-year primary and secondary endpoints.

The BII is a disease-specific four-item instrument that measures the overall impact of LUTS on the general well-being of patients. It yields a total score ranging from 0 to 13, with higher scores indicating a greater impact on patient well-being. It has acceptable test-retest and internal consistency reliability, construct and discriminant

validity, and responsiveness (16). BII was assessed at baseline and at every 3month visit.

Responses to IPSS Q8 (If you were to spend the rest of your life with your urinary condition just the way it is now, how would you feel about that?) were assessed at baseline and at every 3-month visit. Scores range from 0 (delighted) to 6 (terrible). The validity of the IPSS is widely accepted (17).

The PPSM is a 12-item questionnaire that assesses patient satisfaction with treatment. The US English version of the PPSM has been validated for use in men with BPH (18). For questions 1 to 11 patients respond on a 7-item scale. For question 12 (Would you ask your doctor for the medication you received in this study?) the possible responses are yes, no and not sure. PPSM was assessed at baseline and at every 3-month visit. The PPSM total score analysed the summed responses to questions 1–4 and 9–11. Questions 5–8, which relate to pain, were excluded from the PPSM total score analysis due to the low prevalence of pain in BPH patients in general, and the fact that only half of patients had pain before and during urination at any time in this study. The exclusion of the PPSM (18). The score for Question 12 (Would you ask your doctor for the medication you received in this study?) is not included in the total score as this question does not assess patient satisfaction or perception of improvement, but rather a patient's willingness to ask for study medication.

The primary analysis population was the intent-to-treat population, using a last observation carried forward approach. The change from baseline in IPSS Q8 scores, BII total scores and BII individual question scores with combination therapy versus each monotherapy was assessed using *t*-tests from a general linear model with effects for treatment, cluster and baseline value at α =0.01; the individual questions of the BII were analysed post-hoc. Responses to the 12 individual questions of the PPSM were categorised as either positive or negative; positive responses were any improvement for questions on improvement, any satisfaction for questions on satisfaction, and yes for question 12; negative responses were no change or worsening for questions on improvement, neutral or dissatisfaction for questions on satisfaction, and no or not sure for question 12. Comparisons between combination

therapy and each monotherapy were performed using a Mantel-Haenszel test controlling for cluster at α =0.01, selected to ensure a statistically powerful finding. PPSM total score was analysed post-hoc, after the scoring of the questionnaire had been confirmed by psychometric testing.

Results

Demographics and baseline characteristics were generally similar between the treatment groups, and consistent with a moderate-to-severe BPH population (Table 1).

BII

The mean change from baseline in BII at 4 years was -2.2 with combination therapy, -1.8 with dutasteride and -1.2 with tamsulosin (p<0.001 for combination therapy versus each monotherapy) (Figure 1). Improvement in BII from baseline with combination therapy was significantly superior to that with dutasteride from 3 months onwards, and significantly superior to that with tamsulosin from 9 months onwards. The improvement in BII with combination therapy appeared to increase relative to that with tamsulosin from month 24 onwards, and stayed relatively constant relative to that with dutasteride.

The mean baseline scores for the individual BII questions were 1.3, 1.4, 1.6 and 1.0 for questions 1 (physical discomfort), 2 (worry), 3 (level of bother) and 4 (effect on normal activities), respectively. For each individual BII question, the improvement from baseline at 4 years was significantly greater with combination therapy than with either monotherapy (Table 2).

IPSS Q8

At 4 years, the mean change in IPSS Q8 from baseline was -1.5 with combination therapy, -1.3 with dutasteride and -1.1 with tamsulosin (p<0.001 for combination therapy versus each monotherapy) (Figure 2). Improvement in IPSS Q8 from baseline with combination therapy was significantly superior to that with dutasteride from 3 months onwards, and significantly superior to that with tamsulosin from 12 months onwards.

PPSM

At baseline, the proportion of patients reporting a positive response to each of the 12 questions in the PPSM was similar between the treatment groups (Table 3).

At 2 years, the proportion of patients reporting an improvement, satisfaction or desire to request study treatment in response to each of the 12 PPSM questions was significantly higher with combination therapy than with either monotherapy, except for Q5 on pain before urination (superiority of combination therapy did not reach statistical significance versus tamsulosin). The superiority of combination therapy observed at 2 years was sustained out to 4 years (Table 3). In addition, combination therapy was significantly superior to tamsulosin at month 48 for Q5 (pain before urination).

The proportion of patients reporting any satisfaction with treatment in response to Q11 at 4 years was significantly higher with combination therapy (80%) than with dutasteride (74%) or tamsulosin (69%) (Table 3). Satisfaction was significantly higher with combination therapy than with dutasteride from 3 months and with tamsulosin from 15 months (Figure 3). In addition, satisfaction remained relatively stable in the groups receiving combination therapy or dutasteride, but appeared to decrease in the tamsulosin group from 9 months onwards.

At 4 years, the mean change from baseline in PPSM total score (questions 1–4 and 9-11) was -7.0 with combination therapy, -5.5 with dutasteride and -4.1 with tamsulosin (p<0.001 for combination therapy versus each monotherapy) (Figure 4). Improvement in PPSM total score from baseline with combination therapy was significantly superior to that with dutasteride from 3 months onwards, and significantly superior to that with tamsulosin from 12 months onwards.

Discussion

Clinical practice guidelines for the management of BPH recognise the importance of assessing patient-reported health outcomes in addition to objective measures such as improvement in LUTS (5,6). A previous report from the CombAT study showed that combination therapy with dutasteride plus tamsulosin was significantly superior to either monotherapy for improving patient-reported QoL and treatment satisfaction

at 2 years (4). The data presented here confirm and extend these findings, demonstrating the superiority of combination therapy over a longer term (4 years).

CombAT is the first study to show superiority of combined 5ARI plus alpha-blocker therapy over both monotherapies on BPH-related QoL. The Medical Therapy of Prostatic Symptoms (MTOPS) study, which included combination therapy with finasteride and doxazosin, did not assess disease-specific QoL in any detail (19). In the Veteran Affairs Cooperative study, 12 months' treatment with finasteride plus terazosin was superior to finasteride but not terazosin monotherapy for improving BII and global rating of improvement (12). In CombAT, which used the dual 5ARI dutasteride, combination therapy was significantly better than the alpha-blocker (tamsulosin) for improving BII score from 9 months and for improving IPSS Q8 from 12 months, and this superiority was sustained out to 4 years.

In a previous study, over a treatment period of 13 weeks, mean improvements in BII from baseline of -0.5, -1.1 and -2.2 were associated with slight, moderate and marked improvements as perceived by patients (16). In CombAT, the improvement in BII in the combination group reached the threshold for marked improvement at 30 months and this was maintained out to 48 months (except for month 42, when the improvement was -2.1).

The 12 questions of the PPSM assess treatment satisfaction over several domains (control of urinary symptoms, strength of urinary stream, pain of urination, effect on daily activities and overall satisfaction). For each domain, there is one question on the perceived change and another on the level of satisfaction with that change. The final question assesses the patient's desire to receive study medication after the trial (18). After 4 years in the CombAT study, patients receiving combination therapy were significantly more satisfied with their treatment than those receiving either monotherapy. The proportion of patients who responded positively was significantly higher with combination therapy than with either monotherapy for each of the 12 questions. In addition, improvement in PPSM total score from baseline was statistically greater with combination therapy than with either monotherapy (from 3 months onwards compared with dutasteride, and from 12 months onwards compared with tamsulosin); the superiority of combination therapy was reflected in the fact that

significantly more patients in the combination group said they would request their study medication once the trial was over compared with those receiving either monotherapy (PPSM question 12).

It is interesting to note the similarities over the course of the study between the change from baseline in PPSM total score reported here and the change from baseline in the IPSS reported previously (15), particularly with respect to the combination and tamsulosin arms. The detection of a significant difference in symptom (IPSS) improvement between the two treatments (from month 9 onwards) is followed closely by a significant difference in patient-perceived satisfaction with treatment (PPSM total score; from month 12 onwards). This observation of an apparent correlation between IPSS and PPSM is worthy of further investigation.

The lack of a placebo arm in CombAT was based on ethical considerations, since included men were at increased risk of disease progression and each study drug has been show to be superior to placebo in earlier studies. While this represents a potential limitation of the study (as it may have resulted in over-estimated responses), any such effect would apply equally to each of the treatment arms. The consistent effects observed across all questionnaires, as well as symptom measures (15), increase confidence in the study results even in the absence of a placebo group.

In conclusion, in men with moderate-to-severe BPH, combination therapy with dutasteride plus tamsulosin reduced the impact of BPH (BII), improved overall QoL (IPSS Q8), and improved treatment satisfaction (PPSM) to a significantly greater extent than either monotherapy. The significant superiority of combination therapy over both monotherapies was observed at 2 years and was sustained out to 4 years, and the improvement in BII with combination therapy met a previously defined threshold for patient-perceived marked improvement.

Author contributions

All authors contributed to the concept/design of the article, and were responsible for critical revision and final approval of the article.

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Table 1. Baseline demographics and patient characteristics.Data presented asmean (SD) unless otherwise stated.

	Combination	Dutasteride	Tamsulosin
	therapy		
No. of patients	1610	1623	1611
Age, yrs	66.0 (7.05)	66.0 (6.99)	66.2 (7.00)
IPSS	16.6 (6.35)	16.4 (6.03)	16.4 (6.10)
IPSS Q8	3.6 (1.28)	3.6 (1.27)	3.6 (1.27)
BII	5.3 (3.06)	5.3 (2.99)	5.3 (3.07)
PPSM total score	25.0 (6.20)	25.3 (6.21)	25.1 (6.28)
PV (screening), cc	54.7 (23.51)	54.6 (23.02)	55.8 (24.18)
PSA (screening), ng/ml	4.0 (2.05)	3.9 (2.06)	4.0 (2.08)
Qmax, ml/s	10.9 (3.61)	10.6 (3.57)	10.7 (3.66)
Postvoid residual volume, ml	68.2 (66.12)	67.4 (63.49)	67.7 (65.14)
Previous α-blocker use, n (%)	805 (50)	820 (51)	819 (51)
Previous 5ARI use, n (%)	171 (11)	188 (12)	172 (11)

IPSS=International Prostate Symptom Score; BII=BPH Impact Index; LUTS=lower urinary tract symptoms; PPSM=patient perception of study medication; PSA=prostate-specific antigen; PV=prostate volume; Qmax=peak urinary flow rate; 5ARI=5α-reductase inhibitor

Table 2. M	Mean change	from baseline	in scores fo	r individual	questions of	of the
BII at 4 ye	ears					

Question	Combination therapy	Dutasteride	Tamsulosin
1 (physical discomfort)	-0.52*†	-0.42	-0.31
2 (worry)	-0.58*†	-0.50	-0.33
3 (level of bother)	-0.66*†	-0.59	-0.41
4 (effect on normal activities)	-0.41*†	-0.34	-0.19

*p≤0.008 combination therapy vs dutasteride; †p<0.001 combination therapy vs tamsulosin

Table 3. Responses to the 12 individual PPSM questions by treatment group atbaseline, 24 months and 48 months

	% of patients with any imp	provement/satisfactio	on
PPSM question	Combination therapy	Dutasteride	Tamsulosin
Q1. Improvement in con	trol of urinary problems		
Baseline	44	41	45
24	81*†	75	76
48	81*†	76	72
Q2. Satisfaction with cor	ntrol of urinary problems		
Baseline	45	41	43
24	80*†	73	73
48	80*†	74	69
Q3. Improvement in stre	ength of urinary stream		
Baseline	40	38	39
24	77*†	67	67
48	76*†	68	64
Q4. Satisfaction with cha	ange in strength of urinary stre	eam	
Baseline	40	37	39
24	76*†	67	66
48	77*†	68	65
Q5. Improvement in pair	n before urination		
Baseline	39	37	39
24	75*	67	69

48	75*†	67	65
Q6. Satisfaction with ch	ange in pain before urination		
Baseline	41	38	39
24	71*†	64	65
48	71*†	65	64
Q7. Improvement in pai	n during urination		
Baseline	38	35	39
24	75*†	67	69
48	75*†	66	65
Q8. Satisfaction with ch	ange in pain during urination		
Baseline	40	38	39
24	71*†	63	66
48	72*†	64	63
Q9. Improvement in the	level of interference with daily	activities	
Baseline	32	30	31
24	73*†	66	66
48	73*†	67	64
Q10. Satisfaction with c	hange in the level of interferen	ce with daily activities	
Baseline	39	35	37
24	77*†	70	69
48	77*†	70	66
Q11. Overall satisfaction	n with improvement in urinary	problems	
Baseline	46	43	44

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24	81*†	75	74	
48	80*†	74	69	
Q12. Would you a	sk your doctor for the medi	cation you received in t	he study? Yes	
Baseline	38	35	37	
24	65*†	60	60	
48	64*†	58	55	

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Figure 1. Adjusted mean change from baseline in BII

Figure 2. Adjusted mean change from baseline in IPSS Q8

Figure 3. Proportion of patients reporting satisfaction overall with treatment and its effect on their urinary symptoms (Q11 of the PPSM)

Je from base Figure 4. Adjusted mean change from baseline in PPSM total score

Appendix

BII				
Q1. During the last	month, how much ph	nysical discomfort did	any urinary problems	s cause you?
None	Only a little	Some	A lot	
0	1	2	3	
Q2. During the last problems?	month, how much di	d you worry about yo	ur health because of a	any urinary
None	Only a little	Some	A lot	
0	1	2	3	
Q3. Overall, how b	othersome has any tr	ouble with urination b	been during the last m	ionth?
Not at all	A little	Some	A lot	
0	1	2	3	
Q4. During the last kinds of things you	month, how much of would usually do?	the time has any urir	nary problem kept you	I from doing the
None	A Little	Some of the time	Most of the time	All of the time
0	1	2	3	4
IPSS Q8				
If you were to sper you feel about that	nd the rest of your life ?	with your urinary con	dition just the way it i	s now, how would
Delighted				Terrible
0 1	2	3 4	5	6

PPSM questionnaire

1. Since you	began taking tl	ne study medica	ation, how has	control of your	urinary problem	ns changed?
Much improved	Improved	Somewhat improved	No change	Somewhat worse	Worse	Much worse
2. How satisf	ied are you wit	h the effect of t	he study medic	ation on contro	l of your urinary	/ problems?
Very satisfied	Satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Dissatisfied	Very dissatisfied
3. Since you changed?	began taking tl	ne study medica	ation, how has	the strength of	your urinary str	eam
Much improved	Improved	Somewhat improved	No change	Somewhat worse	Worse	Much worse
4. How satisf stream?	ied are you wit	h the effect of t	he study medic	ation on the str	ength of your u	rinary
Very satisfied	Satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Dissatisfied	Very dissatisfied
5. Since you	began taking tl	ne study medica	ation, how has	your pain prior	to urinating cha	anged?
Much improved	Improved	Somewhat improved	No change	Somewhat worse	Worse	Much worse
6. How satisf	ied are you wit	h the effect the	study medicati	on has on your	pain prior to ur	inating?
Very satisfied	Satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Dissatisfied	Very dissatisfied
7. Since you	began taking tl	ne study medica	ation, how has	your pain durin	g urination chai	nged?
Much improved	Improved	Somewhat improved	No change	Somewhat worse	Worse	Much worse
8. How satisf	ied are you wit	h the effect the	study medicati	on has on your	pain during uri	nation?
Very satisfied	Satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Dissatisfied	Very dissatisfied
9. Since you	began taking tl	ne study medica	ation, how has	the way your u	rinary problems	interfere with

10. How satisfied are you with the effect the study medication has on your ability to go about your usual activities without interference with your usual activities? Very Satisfied Somewhat Neutral Somewhat Dissatisfied Very satisfied are you with the study medication and its effect on your urinary problems. Very Satisfied Somewhat Neutral Somewhat Dissatisfied Very satisfied Somewhat Neutral Somewhat Dissatisfied Very satisfied are you with the study medication and its effect on your urinary problems. Very Satisfied Somewhat Neutral Somewhat Dissatisfied Very satisfied dissatisfied dissatisfied dissatisfied dissatisfied dissatisfied 2. Would you ask your doctor for the medication you received in this study? Yes No Not sure	10. How satisfied are you with the effect the study medication has on your ability to go about your usual activities without interference with your usual activities? Very Satisfied Somewhat Neutral Somewhat Dissatisfied Very satisfied are you with the study medication and its effect on your urinary problems. Very Satisfied Somewhat Neutral Somewhat Dissatisfied Very satisfied Somewhat Neutral Somewhat Dissatisfied Very satisfied are you with the study medication and its effect on your urinary problems. Very Satisfied Somewhat Neutral Somewhat Dissatisfied Very satisfied dissatisfied dissatisfied dissatisfied dissatisfied 2. Would you ask your doctor for the medication you received in this study? Yes No Not sure	Much improved	Improved	Somewhat improved	No change	Somewhat worse	Worse	Much wor
Very satisfiedSomewhat satisfiedNeutral satisfiedSomewhat dissatisfiedDissatisfiedVery dissatisfied11. Overall how satisfied are you with the study medication and its effect on your urinary problemsSomewhat satisfiedNeutral somewhatSomewhat DissatisfiedVery dissatisfiedVery satisfiedSomewhat satisfiedNeutral satisfiedSomewhat dissatisfiedDissatisfiedVery dissatisfied12. Would you ask your doctor for the medication you received in this study?NoNot sureVeryNoYesNoNot sureNoNot sureNo	Very Satisfied Somewhat Neutral Somewhat Dissatisfied Very dissatisfied 11. Overall how satisfied are you with the study medication and its effect on your urinary problems. Very Satisfied Somewhat Neutral Somewhat Dissatisfied Very satisfied satisfied dissatisfied dissatisfied dissatisfied 12. Would you ask your doctor for the medication you received in this study? Yes No Not sure	10. How sa usual activit	tisfied are you v ties without inte	vith the effect th rference with yc	e study medica our usual activit	ation has on you ies?	ur ability to go a	about your
11. Overall how satisfied are you with the study medication and its effect on your urinary problems Very Satisfied Somewhat Neutral Somewhat Dissatisfied Very satisfied astisfied dissatisfied dissatisfied dissatisfied 12. Would you ask your doctor for the medication you received in this study? Yes No Not sure	11. Overall how satisfied are you with the study medication and its effect on your urinary problems Very Satisfied Somewhat Neutral Somewhat Dissatisfied Very satisfied aissatisfied dissatisfied dissatisfied dissatisfied 12. Would you ask your doctor for the medication you received in this study? Yes No Not sure	Very satisfied	Satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Dissatisfied	Very dissatisfie
Very Satisfied Somewhat Neutral Somewhat Dissatisfied Very satisfied satisfied dissatisfied dissatisfied 12. Would you ask your doctor for the medication you received in this study? Yes No Not sure	Very Satisfied Somewhat Neutral Somewhat Dissatisfied Very satisfied satisfied dissatisfied dissatisfied dissatisfied 12. Would you ask your doctor for the medication you received in this study? Yes No Not sure	11. Overall	how satisfied a	re you with the s	study medicatio	on and its effect	on your urinar	y problems?
12. Would you ask your doctor for the medication you received in this study? Yes No Not sure	12. Would you ask your doctor for the medication you received in this study? Yes No Not sure	Very satisfied	Satisfied	Somewhat satisfied	Neutral	Somewhat dissatisfied	Dissatisfied	Very dissatisfie
Yes No Not sure	Yes No Not sure	12. Would y	/ou ask your do	ctor for the med	lication you rec	eived in this stu	ıdy?	





150x112mm (300 x 300 DPI)



150x112mm (300 x 300 DPI)





150x112mm (300 x 300 DPI)

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Figure 4

Adjusted mean change from baseline in

PPSM total score

Baseline 6

0

-1.0

-2.0

-3.0

-4.0

-5.0

-6.0

-7.0

-8.0

12

Combination

18

Study month

24

p<0.001 Combination vs Dutasteride

- Dutasteride

150x112mm (300 x 300 DPI)

p<0.001 Combination vs Tamsulosin

---- Tamsulosin

30

36

42

48

4.1

-7.0

