Efficacy and Safety of Alfuzosin and Tadalafil Combination Therapy in the Management of Lower Urinary Tract Symptoms Due to Benign Prostatic Hyperplasia: *A Clinician-Based Survey in India*

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***Abstract*—Background: Lower urinary tract symptoms (LUTS) due to benign prostatic hyperplasia (BPH) significantly impact the quality of life in aging men. Although monotherapy with α-blockers or phosphodiesterase type 5 inhibitors (PDE5is) provides symptomatic relief, combination therapy has emerged as a more effective strategy. This study evaluates the efficacy and safety of alfuzosin and tadalafil combination therapy in managing LUTS/BPH based on clinician perspectives in India.**

Methods: A cross-sectional, questionnaire-based survey was conducted among 146 healthcare professionals in BPH management. The questionnaire assessed clinical experiences and opinions regarding the benefits, efficacy, and safety of alfuzosin and tadalafil combination therapy compared with monotherapy. Descriptive statistical methods were used for data analysis.

Results: A majority of clinicians (64%) agreed that combination therapy provides superior symptom relief, improving International Prostate Symptom Score, uroflowmetry parameters (Qmax, post-void residual volume), and erectile function scores. Additionally, 65% of respondents acknowledged that combination therapy has a favorable safety profile, with no significant increase in adverse events, including hypotension. The combination was particularly beneficial for patients with severe LUTS and comorbid erectile dysfunction.

Conclusion: The findings support using the combination of alfuzosin and tadalafil as an effective and well-tolerated treatment for LUTS/BPH. The combination provides superior symptomatic relief and quality-of-life improvements compared with monotherapy. Future randomized controlled trials are needed to further validate its long-term efficacy and safety.

***Index Terms*—Benign prostatic hyperplasia, lower urinary tract symptoms, alfuzosin, tadalafil, combination therapy, erectile dysfunction.**

INTRODUCTION

Prevalence and Impact of Lower Urinary Tract Symptoms/Benign Prostatic Hyperplasia (LUTS/BPH):

LUTS due to BPH significantly affect men aged ≥50, with prevalence increasing from 3% in men aged 45–49 to over 30% in those ≥85.[1]. Lee et al. (2017) analyzed 31 prevalence rate estimates from 25 countries [2]. The combined data revealed a lifetime prevalence of BPH of 26.2% (95% CI: 22.8%–29.6%). The prevalence of BPH increased with age, but no significant differences were found based on (a) rural, urban, or mixed settings, (b) country, (c) respondent representativeness, (d) sample size, or (e) study quality. Additionally, there was no significant change in prevalence over the past 20 years. Despite considerable variation between site estimates, the findings suggest that nearly 1 in 4 men will experience BPH in their lifetime. These symptoms negatively impact quality of life (QoL), causing depression, anxiety, and difficulties in daily activities. The condition also affects social and emotional well-being and work productivity[1–4].

Efficacy of Combination Therapy:

The combination of alfuzosin (α-blocker) and tadalafil (PDE5i) has shown superior efficacy compared to monotherapy. A meta-analysis by Sun et al. (2018) found that combination therapy was more effective in improving the International Prostate Symptom Score (IPSS), maximum flow rate, post-void residual volume (PVR), and QoL compared to monotherapy[5]. Kumar et al. (2013) demonstrated that the combination therapy provided greater overall symptomatic relief and QoL benefits for LUTS/BPH patients than either drug alone[6].

Mechanism of Action:

The exact pathophysiological connection between ED and LUTS remains unclear, but four hypotheses have been proposed in the literature[7].

1. The first hypothesis suggests impaired nitric oxide synthase (NOS) in the endothelium of the prostate, bladder, and penis
2. The second hypothesis points to increased Rho-kinase activation, leading to reduced smooth muscle relaxation, increased bladder outlet resistance, and impaired erection
3. The third theory involves autonomic hyperactivity and the effects of metabolic syndrome on LUTS, prostate growth, and ED
4. The fourth hypothesis links atherosclerosis as a common mechanism for both LUTS and ED

These theories are interconnected and may overlap. Common vascular risk factors influenced impaired NOS and reduced nitric oxide (NO) levels, increased Rho-kinase activation, and atherosclerosis. Atherosclerosis may reduce NO levels, activate Rho-kinase, and contribute to smooth muscle loss in the bladder detrusor and prostate fibrosis, which are associated with decreased bladder compliance and increased urethral resistance, respectively[7].

Tadalafil's mechanism of action is primarily centered around the upregulation of the nitric oxide (NO)/cyclic guanosine monophosphate (cGMP) pathway, which plays a crucial role in its therapeutic effects. Preclinical studies have shown that tadalafil can reverse norepinephrine- and endothelin-1-induced prostatic tissue contraction and exert an antiproliferative effect on prostate and bladder smooth muscle cells, helping reduce smooth muscle tension and mitigate cellular proliferation associated with prostate and bladder hypertrophy. Tadalafil is more effective than sildenafil or vardenafil in relaxing endothelin-1-induced prostatic tissue contraction via the Rho-kinase pathway. Additionally, tadalafil may reduce autonomic nervous system overactivity by inhibiting NO's effect on ion channels in afferent neurons, potentially alleviating bladder afferent nerve firing and non-voiding contractions. It has also been shown to increase prostatic blood perfusion and oxygenation in animal models and preliminary human studies, suggesting improved prostatic blood flow. Finally, tadalafil may reduce inflammation by attenuating the expression of inflammatory markers such as TNF-α, IL-1β, and IL-8, thereby potentially reducing atherosclerotic damage and overall inflammation by limiting leukocyte recruitment. These mechanisms highlight tadalafil's potential in addressing both ED and LUTS through a multifaceted approach[7]. Due to the above, tadalafil was approved by the FDA for treating LUTS/BPH, ED, and pulmonary arterial hypertension[5].

In vitro studies have shown that the combination of alfuzosin and tadalafil exerts an additive relaxant effect on human detrusor and prostatic tissues[8]. This synergistic effect explains the enhanced clinical efficacy observed with combination therapy.

Safety Profile:

The combination therapy is generally well-tolerated. Although some studies report mild to moderate adverse effects, there is no significant increase in serious adverse events or symptomatic hypotension. The combination may even help mitigate some side effects associated with tadalafil monotherapy, such as headache and dyspepsia, although more research is needed to confirm this[3,9].

Improvements in Erectile Function:

Liguori et al. (2009) found that combination therapy resulted in the greatest overall symptomatic improvement, with IPSS improving by 41.6% compared to 27.2% with alfuzosin alone and 8.4% with tadalafil alone. The combination also improved erectile function, making it particularly beneficial for patients with both LUTS and erectile dysfunction[10].

Uroflowmetry Improvements:

Combination therapy has shown superior improvements in uroflowmetry parameters. Roehrborn et al. (2014) reported statistically significant improvements in maximum urinary flow rate (Qmax) with tadalafil 5 mg compared to placebo[11]. The combination therapy further enhances these improvements.

Guidelines and Clinical Practice:

According to the American Urological Association (AUA) 2021[12]:

- Clinicians should offer one of the following alpha blockers for patients with bothersome, moderate to severe LUTS/BPH: alfuzosin, doxazosin, silodosin, tamsulosin, or terazosin (Moderate Recommendation; Evidence Level: Grade A)
- The choice of alpha blocker should be based on the patient's age, comorbidities, and adverse event profiles (e.g., ejaculatory dysfunction and changes in blood pressure) (Moderate Recommendation; Evidence Level: Grade A)
- Clinicians may consider combining low-dose daily 5mg tadalafil with alpha blockers for the treatment of LUTS/BPH (Conditional Recommendation; Evidence Level: Grade C)

Similar Canadian Urological Association guideline update 2018 stated that alfuzosin, doxazosin, tamsulosin, terazosin, and silodosin are valid treatment options for LUTS secondary to BPH. Alpha-blockers do not alter the natural progression of the disease. Phosphodiesterase type 5 inhibitors (PDE5is), such as tadalafil, not only improve erectile function but also effectively treat male LUTS. Due to its longer half-life, tadalafil 5 mg daily is approved for LUTS treatment. Studies have demonstrated improvements in the IPSS, storage and voiding symptoms, and overall QoL[13].

Thus, the scientific evidence strongly supports the use of combination therapy with alfuzosin and tadalafil for LUTS management in patients with severe BPH, particularly those with comorbid erectile dysfunction. The combination offers improved efficacy, a favorable safety profile, and benefits in both urinary symptoms and sexual function.

This study evaluates the efficacy and safety of alfuzosin and tadalafil combination therapy in managing LUTS/BPH based on clinician perspectives in India.

METHODS

The present survey was conducted as a nationwide, cross-sectional, multiple-response questionnaire-based study targeting practicing urologists and physicians across India with a minimum of 10–15 years of clinical experience, actively managing patients with moderate-to-severe LUTS due to BPH. A total of 146 clinicians participated in the survey. The questionnaire was designed based on a thorough literature review and current clinical guidelines, focusing on clinically relevant aspects of combination therapy with alfuzosin (an alpha-blocker) and tadalafil (a phosphodiesterase type 5 inhibitor). The final survey consisted of 9 closed-ended questions covering key domains: (1) perceived efficacy; (2) symptomatic improvement; (3) impact on adverse effects; (4) safety profile; and (5) clinical practice considerations. Before distribution, the questionnaire underwent face and content validation, with refinements incorporated accordingly.

Data collection was conducted digitally using a secure online platform (Google Forms). Informed consent was obtained electronically from all respondents before participation. The survey ensured broad regional representation across India and was conducted in January 2025. All responses were anonymized to protect participant confidentiality.

Statistical Analysis

Descriptive statistical methods were employed for data analysis. Categorical variables describing participant responses to survey questions (e.g., agreement levels, perceived benefits, safety perceptions) were compared across response categories using Pearson's chi-square test; Fisher's exact test was applied when any expected cell count was less than 5. Data visualization, including pie and bar charts, was generated using Microsoft Excel 2013.

RESULTS AND DISCUSSION

The results of the survey, consisting of 9 closed-ended questions covering key domains: (1) perceived efficacy; (2) symptomatic improvement; (3) impact on adverse effects; (4) safety profile; and (5) clinical practice considerations, are discussed below. Table 1 reports the chi-square test statistic (χ^2) and the corresponding two-sided p-value for the questions shown. Statistical significance was defined as $p < 0.05$. Pearson's chi-square test was applied to assess whether the observed response distributions significantly deviated from an equal distribution across response categories.

1. Evidence indicates that LUTS caused by benign prostatic obstruction affect 50% of men aged ≥50 years and are associated with reduced QoL. To what extent do you agree with this statement?

Evidence suggests that LUTS due to benign prostatic obstruction impact 50% of men aged ≥50 years, significantly affecting their QoL[1]. Among healthcare professionals, 101 (69.18%) strongly agreed with this statement, highlighting widespread recognition of the condition's impact. Additionally, 45 (30.82%) HCPs agreed, reinforcing the consensus on its prevalence and consequences. These findings emphasize the importance of effective management strategies to improve patient outcomes.

Table 1: Distribution of clinician responses to key survey questions on the perceived benefits and efficacy of alfuzosin plus tadalafil combination therapy for lower urinary tract symptoms (LUTS) due to benign prostatic hyperplasia (BPH)

Questions	Responses	Test statistic	P-value
Q1. Perceived superiority of alfuzosin–tadalafil combination therapy over monotherapy for symptomatic relief in LUTS due to BPH		**X2 = 21.48**	**<0.01**
Agree	**101**		
Strongly agree	**45**		
Q4. Perceived potential of alfuzosin–tadalafil combination to reduce tadalafil monotherapy–related adverse effects in BPH-associated LUTS		**20.26**	**<0.01**
Strongly agree	**24**		
Agree	**67**		
Somewhat agree	**55**		
Q7. Clinician agreement on the superior symptomatic efficacy of alfuzosin–tadalafil combination versus monotherapy		**10.45**	**<0.01**
Strongly agree	**57**		
Agree	**58**		
Suitable for specific patient populations	**30**		

Literature supports the statement that LUTS caused by benign prostatic obstruction affect a significant proportion of men aged ≥50 years and are associated with reduced QoL. The prevalence of LUTS/BPH increases with age, affecting approximately 3% of men aged 45-49 years and rising to over 30% in men aged 85 years and older[1]. Studies have consistently shown that LUTS/BPH negatively impact the QoL for patients and their partners[1,7]. The symptoms, which include urgency, frequency, nocturia, and a weak urinary stream, can cause significant bother and interfere with daily activities[1,3]. The impact on QoL is further evidenced by findings that LUTS/BPH is associated with depression, anxiety, and difficulties in daily life[2]. QoL of

males is affected by lower social and emotional well-being and work productivity[4]. It is important to note that while the exact prevalence figures may vary across studies, the general trend of increasing prevalence with age and the associated negative impact on QoL is consistently reported in the literature.

2. Based on your clinical experience, which of the following best explains the benefits of using combination therapy of alfuzosin (alpha-blocker) and tadalafil (PDE5i) for improving moderate-to-severe LUTS over monotherapy?

The majority of healthcare professionals, 94 (64%), believe that the combination of alfuzosin (α-blocker) and tadalafil (PDE5i) offers multiple benefits over monotherapy for managing moderate-to-severe LUTS. Additionally, 26 (18%) HCPs highlighted its superiority in improving IPSS, Qmax, and PVR levels in patients with BPH, whereas 14 (10%) emphasized significant improvements in the IPSS voiding subscore. Furthermore, 9 (6%) HCPs pointed to AUA and EAU guidelines recommending α-blockers for moderate-to-severe LUTS/BPH, and 3 (2%) of them noted the reduced risk of vascular adverse events with alfuzosin and tadalafil. These findings suggest strong clinical support for combination therapy in LUTS management (Figure 1).

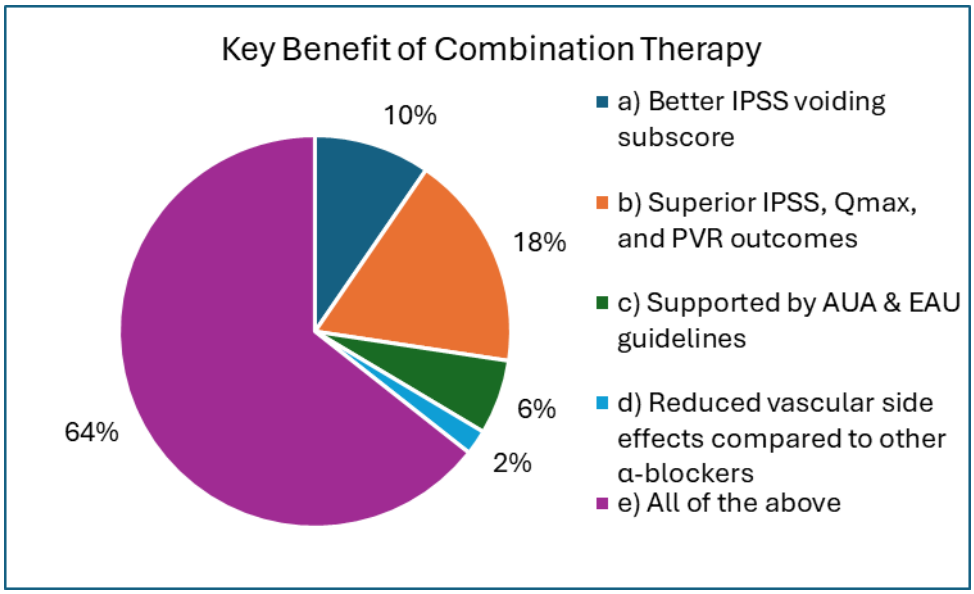

Figure 1: Survey responses identifying the key perceived benefit of combination therapy in managing benign prostatic hyperplasia (BPH)

Preliminary animal and clinical studies suggest that combining α-adrenergic antagonists and PDE5i may offer benefits for managing LUTS associated with benign prostatic hyperplasia[5,6,14].

A meta-analysis by Sun et al. (2018) evaluated the efficacy and safety of adrenoceptor-1 blockers and PDE5is in treating lower ureteric stones and LUTS. A systematic review of 17 randomized controlled trials up to November 2016 was conducted using data from PubMed, Cochrane Library, Web of Science, and Embase. The results showed that for lower ureteric stones, tadalafil had a significantly lower incidence of abnormal ejaculation compared to adrenoceptor-1 blockers, whereas combination therapy had a higher expulsion rate and shorter expulsion time than tamsulosin. For LUTS, adrenoceptor-1 blockers were more effective than PDE5is in reducing IPSS and PVR, whereas PDE5is were more effective in improving erectile dysfunction. Combination therapy showed superior efficacy in improving IPSS, maximum flow rate, PVR, and quality of life compared with monotherapy but was associated with a higher incidence of adverse events when compared to adrenoceptor-1 blockers. However, compared to PDE5is alone, combination therapy improved LUTS without an increased risk of adverse events[5].

3. Clinical evidence indicates that combination therapy involving tadalafil and alfuzosin is effective in patients with BPH and LUTS. Which among the following best explains the efficacy of the alfuzosin and tadalafil combination therapy?

Among healthcare professionals, 104 (71%) acknowledged that the combination therapy of alfuzosin and tadalafil provides multiple benefits, including significant improvement in uroflowmetry measures, erectile function (IIEF-EF scores), QoL, and IPSS reduction. Additionally, 30 (21%) HCPs specifically highlighted improvements in uroflowmetry and erectile function scores, whereas 9 (6%) emphasized better QoL outcomes in patients with BPH. Meanwhile, 3 (2.05%) recognized the superior IPSS reduction achieved with combination therapy compared to monotherapy. These findings underscore strong clinical support for the efficacy of the alfuzosin and tadalafil combination therapy in patients with BPH and LUTS.

In vitro studies have shown that the combination of alfuzosin and tadalafil exerts an additive relaxant effect on human detrusor and prostatic tissues. This suggests a potential mechanism for the enhanced clinical efficacy observed with combination therapy[8].

The combination therapy has been shown to provide greater improvements in IPSS, Qmax, and PVR urine volume compared to monotherapy with either agent alone.[6] Uroflowmetry is a simple, risk-free, office-based diagnostic tool that serves as a valuable adjunct in assessing voiding function. A flow rate of <10 mL/s has demonstrated 70% specificity, 70% positive predictive value, and 47% sensitivity for detecting bladder outlet obstruction (BOO).[12] Roehrborn et al. (2014) reported that uroflowmetry parameters, specifically maximum urinary flow rate (Qmax), demonstrated a statistically significant improvement with tadalafil 5 mg compared to placebo in men with BPH-associated LUTS[11].

4. Given the observed connections between BPH and LUTS, do you agree that combining alfuzosin and tadalafil might effectively mitigate the side effects associated with tadalafil monotherapy (headache, dyspepsia, nasal congestion, flushing, and back pain)?

A majority of healthcare professionals, 67 (46%), agree that combining alfuzosin and tadalafil may effectively mitigate the side effects associated with tadalafil monotherapy, such as headache, dyspepsia, nasal congestion, flushing, and back pain. Additionally, 24 (16%) strongly agree with this statement, further supporting the potential benefits of combination therapy. Meanwhile, 55 (38%) somewhat agree, indicating that while some may have reservations, there is overall strong clinical support for this approach in managing BPH-related LUTS.

The smooth muscle relaxation due to α-blockers also leads to a reduction in vascular tone, which may result in orthostatic hypotension[15]. Studies have shown that α-blockers are significantly associated with an increased risk of vascular adverse events, highlighting the need for careful patient selection and monitoring during treatment[9]. Nagasubramanian et al. (2020) reported that the combination of tamsulosin and tadalafil produced significantly better improvements in LUTS, QoL, erectile function, and Qmax compared to monotherapy with tamsulosin, without an increase in AEs[16]. There is strong evidence supporting the safety of PDE5is in combination with α-blockers for the treatment of LUTS/BPH. Although several studies have reported an increased prevalence of mild-to-moderate adverse effects, occasionally leading to higher drug discontinuation rates, they have consistently found no significant increase in serious adverse events, symptomatic hypotension, or changes in systolic blood pressure[9].

5. Research indicates that adding 10 mg of alfuzosin (alpha-blocker) once daily to tadalafil (PDE5i) improves erectile dysfunction in 71% of patients who did not respond to tadalafil alone and has beneficial effects on LUTS and ED without increasing the side effects. In light of this, would you recommend combination therapy over monotherapy in your clinical practice?

A majority of healthcare professionals, 81 (55%), would consider using a combination therapy of alfuzosin and tadalafil specifically for patients with severe BPH and ED, whereas 61 (42%) HCPs strongly advocate for its use over monotherapy in clinical practice. Additionally, 4 (3%) HCPs expressed alternative views. These findings suggest significant clinical support for combination therapy due to its efficacy in improving erectile dysfunction and LUTS without increasing side effects.

6. Which of the following statements accurately describes the safety profile of combining alfuzosin 10 mg and tadalafil 5 mg once daily compared to using tadalafil 10 mg alone in patients with LUTS secondary to BPH?

Out of the total 146 healthcare professionals, 94 (65%) agreed that all of the statements accurately describe the safety profile of combining alfuzosin 10 mg and tadalafil 5 mg once daily, noting fewer hypotensive events and minimal side effects. Additionally, 40 (28%) highlighted that this combination therapy helps reduce hypotensive effects while improving LUTS and sexual function. Meanwhile, 9 (6%) observed that the combination showed no significant changes in blood pressure, and 2 (1%) HCPs emphasized that side effects were minimal and self-limiting. One healthcare professional (0.68%) did not respond (Figure 2).

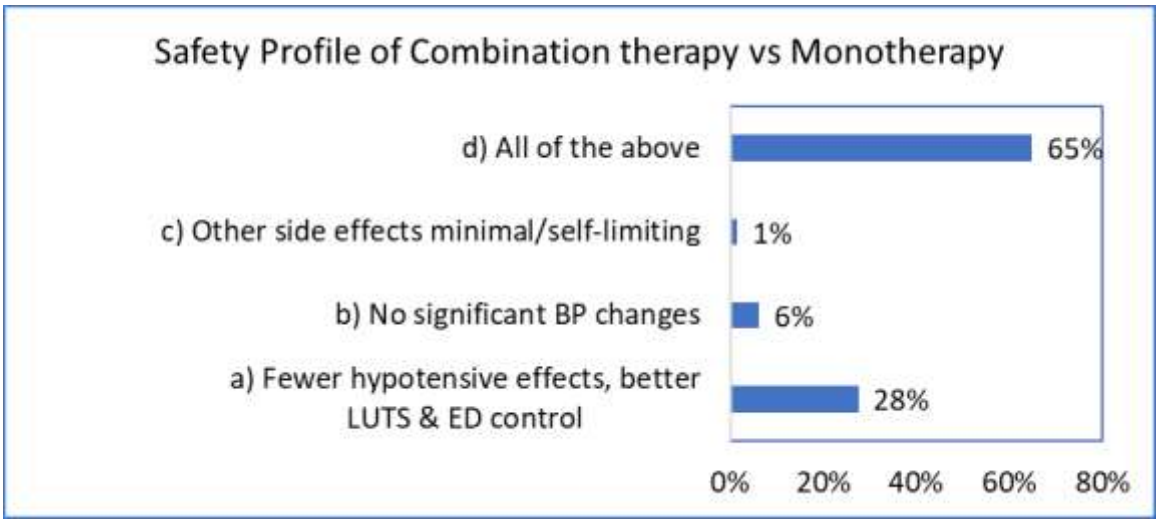

Figure 2: Perceptions of the safety profile of combination therapy compared to monotherapy for benign prostatic hyperplasia (BPH)

A study by Kumar et al. (2013) assessed the efficacy of alfuzosin (10 mg) and tadalafil (10 mg) combination therapy compared to monotherapy in men with LUTS due to BPH. A total of 75 men aged ≥50 years with IPSS ≥8 were randomized to receive alfuzosin (10 mg), tadalafil (10 mg), or their combination once daily for 3 months[6]. Combination therapy demonstrated superior improvements in IPSS scores and PVR urine volume reduction compared to either monotherapy ($p < 0.005$). It provided comparable benefits to alfuzosin in improving peak urinary flow rate ($p = 0.22$) and similar effects to tadalafil in enhancing erectile function ($p = 0.22$). Additionally, IPSS QoL scores improved significantly more with combination therapy than with monotherapy ($p \leq 0.015$). These findings suggest that alfuzosin and tadalafil combination therapy offers greater overall symptomatic relief and QoL benefits for patients with LUTS/BPH than either drug alone[6].

The combination of alfuzosin and tadalafil has been shown to exert an additive relaxant effect on human detrusor and prostatic tissues in vitro[8]. This synergistic effect could potentially allow for lower doses of each medication, which might reduce the incidence of side effects associated with higher doses of tadalafil alone. However, it's important to note that combination therapy may still produce side effects. A study on the combination of alfuzosin and tadalafil reported adverse effects, including facial flushing, headache, and dizziness, although these were generally mild and well-tolerated[3,9].

7. Clinical studies suggest that alfuzosin and tadalafil combination therapy provides greater symptomatic improvement as compared to either monotherapy in men with LUTS due to BPH. Do you agree?

Of the 146 healthcare professionals, 57 (39%) strongly agree that the combination of alfuzosin and tadalafil provides greater symptomatic improvement than either monotherapy in men with LUTS due to BPH. Meanwhile, 58 (40%) agree with this statement, and 30 (21%) consider it suitable for specific patient populations. One healthcare professional (0.68%) did not respond. A study by Liguori et al. (2009) evaluated the symptomatic relief provided by combination therapy with alfuzosin (α-blocker) and tadalafil (PDE5i) in men with LUTS and ED. A total of 66 men were randomized into three groups: alfuzosin (10 mg once daily), tadalafil (20 mg on alternate days), or combination therapy for 12 weeks. Combination therapy resulted in the greatest overall symptomatic improvement, with IPSS improving by 41.6%, compared to 27.2% with alfuzosin alone and 8.4% with tadalafil alone. Similarly, uroflowmetry parameters showed superior improvements with combination therapy, with maximum urinary flow rate (Qmax) increasing by 29.6%, compared to 21.7% with alfuzosin and 9.5% with tadalafil. These findings indicate that combining alfuzosin and tadalafil provides greater symptomatic relief for both LUTS and ED than either drug alone, leading to a significant improvement in QoL[10].

8. Evidence suggests that combination therapies are associated with improved outcomes compared with first-line monotherapy in individuals with moderate-to-severe LUTS. Which of the following is true in your opinion?

According to the responses, 89 (61%) agreed that all of the statements are true, highlighting that combination therapy is not associated with a significantly greater number of adverse events than PDE5i medications alone, is more effective for lowering IPSS, and should be considered a safe option for patients with comorbid ED. Additionally, 25 (17%) HCPs believe combination therapy is more effective than PDE5i alone for lowering IPSS, 19 (13%) consider it a safe regimen for patients with comorbid ED, and 13 (9%) note that combination therapy does not significantly increase adverse events compared to PDE5i alone.

ED and BPH-associated LUTS are prevalent conditions in aging men, often sharing common pathophysiological mechanisms. Epidemiological data suggest a link between these two conditions, with both being influenced by factors such as aging, hormonal imbalances, and vascular changes[7].

Tadalafil 5 mg once daily has been approved as a treatment for BPH-associated LUTS, with or without comorbid ED. Studies have shown that tadalafil significantly improves symptoms of LUTS, including the total IPSS, voiding and storage subscores, and the IPSS QoL score, as well as the BPH Impact Index (BII). Importantly, its effectiveness does not depend on the presence of erectile dysfunction[7].

Although tadalafil has shown significant benefits in managing LUTS, it does not improve certain urodynamic parameters, such as maximum urine flow or PVR. Its safety profile is well-established, with adverse events similar to those seen in ED treatments, making it a favorable option for patients with ED and LUTS. Unlike other treatments for LUTS, such as α-adrenergic antagonists or 5α-reductase inhibitors, tadalafil does not carry the risk of sexual adverse events, providing a unique advantage for men with concurrent ED and BPH-associated LUTS. Thus, tadalafil is not only an alternative treatment but also a dual-purpose option for managing both conditions simultaneously[7].

9. Scientific evidence favors combination therapy with alfuzosin and tadalafil for LUTS management in patients with severe BPH. Which of the following is true?

Of the 146 healthcare professionals who responded, 97 (68%) agreed that all of the statements are true, supporting the use of combination therapy with alfuzosin and tadalafil for LUTS management in patients with severe BPH. They noted that the combination leads to clinically significant hemodynamic changes, has a safety profile comparable to monotherapy, shows no increase in orthostatic test positivity, and is generally well-tolerated. Furthermore, 23 (16%) highlighted that the combination therapy did not significantly increase adverse events related to hypotension compared to alpha-blocker monotherapy, whereas 12 (8%) observed clinically significant hemodynamic changes, 11 (8%) reported that adverse events were minimal and well-tolerated, and 2 (1%) noted no increase in orthostatic test positivity. One healthcare professional (0.68%) did not respond (Figure 3).

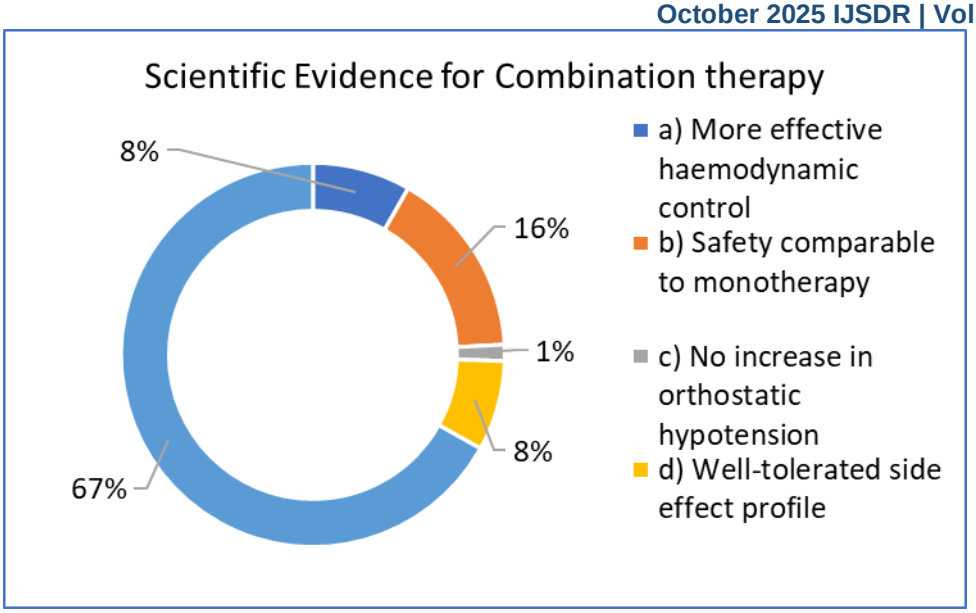

Figure 3: Survey-based assessment of scientific evidence supporting combination therapy in benign prostatic hyperplasia (BPH)

Orthostatic hypotension is characterized by a significant drop in blood pressure upon standing. Specifically, systolic blood pressure decreases by more than 20 mm Hg, and diastolic blood pressure drops by more than 10 mm Hg within 3 minutes of standing, compared to when the person is in a supine position (lying down).[15] It can cause dizziness when moving from a lying or sitting position to standing. It is often associated with aging, dehydration, certain medications, and underlying health conditions such as diabetes, Parkinson's disease, or heart problems[17].

Adamou et al. (2020) systematically reviewed the safety of combined treatment with an alpha blocker and phosphodiesterase-5 inhibitor. It included 19 randomized controlled trials comparing alpha-blocker monotherapy with combined treatment. The primary endpoints focused on hemodynamic effects, particularly clinically significant changes and positive orthostatic tests. Secondary endpoints examined adverse events. The results showed that the combined treatment led to more clinically significant hemodynamic changes compared to the monotherapy, with a mean difference of 4.73 (95% CI 1.25, 17.94), indicating a significant effect. However, the occurrence of positive orthostatic tests was similar between the two groups, with a mean difference of 1.64 (95% CI 0.36, 7.47). Regarding adverse events, the monotherapy group had fewer overall adverse events compared to the combined treatment group, with an odds ratio of 0.5 (95% CI 0.32, 0.78). However, when considering only hypotension-related adverse events, the outcomes were similar between the two groups, with an odds ratio of 0.97 (95% CI 0.58, 1.64), indicating no significant difference in hypotension-related risks. In conclusion, while the combination of an alpha blocker and phosphodiesterase-5 inhibitor may cause more significant hemodynamic changes, it does not increase the rate of hypotension-related adverse events, making it a safe treatment option for patients who need both medications[15].

CONCLUSION

The combination therapy of alfuzosin and tadalafil presents a promising and well-tolerated treatment option for patients with lower urinary tract symptoms due to benign prostatic hyperplasia, particularly those with concurrent erectile dysfunction. Clinical evidence supports that this combination improves IPSS, uroflowmetry parameters, and overall QoL more effectively than monotherapy. Furthermore, the therapy is associated with minimal adverse events, with no significant increase in symptomatic hypotension.

Our clinician-based survey in India highlights strong clinical support for the use of alfuzosin and tadalafil combination therapy, with a majority of healthcare professionals recognizing its superior efficacy and safety. The findings align with existing literature and reinforce the recommendation for combination therapy, especially in patients with moderate-to-severe LUTS. Future research with larger randomized controlled trials will further validate its long-term benefits and optimize treatment strategies.

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