



XSTAN 40 TABLETS

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Telmisartan versus Amlodipine: A Comparative Clinical Study on Efficacy and Safety in Essential Hypertension

Suhaina A.S. et.al, IJPRT. 2026;16(1)

- Essential hypertension is a major cardiovascular risk factor in India, and both angiotensin II receptor blockers (ARBs) and dihydropyridine calcium channel blockers (CCBs) are widely used as first-line agents. Telmisartan offers renin-angiotensin system blockade with partial peroxisome proliferator-activated receptor-gamma (PPAR- γ) activity, while amlodipine reduces peripheral vascular resistance via L-type calcium channel blockade.
- A prospective, randomized, open-label, parallel-group study was conducted in 100 adults with mild to moderate essential hypertension over 12 weeks at SMIMS. Patients were randomized to telmisartan 40 mg once daily (Group T, n=50) or amlodipine 5 mg once daily (Group A, n=50). Clinic systolic and diastolic blood pressure (SBP, DBP) were recorded at baseline, 4, 8 and 12 weeks. Efficacy end points were mean change in SBP/DBP and proportion achieving target BP <140/90 mmHg. Tolerability was assessed by adverse drug reactions (ADRs) and withdrawals.
- Mean baseline BP was comparable between groups (telmisartan 152 $\pm$ 8/96 $\pm$ 6 mmHg; amlodipine 151 $\pm$ 9/95 $\pm$ 7 mmHg). At 12 weeks, both drugs significantly reduced SBP (telmisartan -20 $\pm$ 9 mmHg; amlodipine -18 $\pm$ 10 mmHg), with a modest numerical advantage for telmisartan. Telmisartan produced greater DBP reduction (-13 $\pm$ 6 vs -10 $\pm$ 7 mmHg) and a higher target BP achievement rate (78% vs 66%).
- Peripheral oedema occurred more frequently with amlodipine (16% vs 4%), whereas telmisartan was metabolically neutral or favourable for fasting glucose and lipid parameters.

Telmisartan may be preferred as initial monotherapy in hypertensive patients , especially in those with metabolic risk factors.



