



TELMISARTAN EFFICACY IN INDIA FOR BLOOD PRESSURE CONTROL IN HYPERTENSIVE PATIENTS.

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ABSTRACT Telmisartan is an effective angiotensin-2 receptor blocker.1 Telmisartan is also a PPAR γ agonist (Peroxisome proliferator activated receptor - γ agonist). Due to these properties, Telmisartan is an effective drug in various degrees of hypertension and is also well tolerated. India has a large number of patients with hypertension with other Comorbid conditions including diabetes. Hence a deep understanding of the efficacy of Telmisartan in Indian patients is a valuable asset.

KEYWORDS :

BACKGROUND-

In the global health scenario, hypertension has been found to be an important and significant risk factor for cardiovascular diseases.

The great Indian blood pressure survey findings have brought to light important findings. The survey reported in 2017, that around 234 million Indians have hypertension and was a causes of mortality in 98,912 patients. These findings thus highlight that in-spite of awareness and improved treatment modalities controlling hypertension, is still a problem to be fully conquered.²

Telmisartan, a renin angiotensin inhibitor has found a considerable place in the management of hypertension with diabetes as a comorbidity. It offers multiple benefits in this scenario.

It has cardioprotective effect, it also has beneficial effect in managing blood sugar and lipid metabolism.^{1,5}

Thus Telmisartan has become an ideal choice in management of new onset diabetes with hypertension. This effect is more pronounced in the the elderly population.³

COMPARABLE STUDY OF TELMISARTAN WITH OTHER ANTIHYPERTENSIVES.

Several clinical trials have shown that Telmisartan has favorable response towards lowering of blood pressure over all aspects of hypertension. It causes rapid and extended reduction of systolic and diastolic blood pressure.⁶ It helps in lowering the heart rate.⁴

Various comparable studies with other antihypertensives drugs are outfield below to show how efficacious Telmisartan is-

1. Telmisartan and Atenolol

Two studies one short term⁷ and one long term⁸ were conducted for comparing Telmisartan and atenolol. In both these studies there was comparable reduction of both the systolic and diastolic blood pressure.

2. Telmisartan and Ace inhibitors

In a multicentre, randomized, double-blind dose titration study Telmisartan and Lisinopril were compared. The study outcome showed that the systolic BP, diastolic BP reduction and heart rates were not significantly different. However the occurrence of adverse events were much lower in the Telmisartan group as compared to the lisinopril group.⁹

3. Telmisartan and Amlodipine

The efficacy of Telmisartan was compared with Amlodipine in a double blind, randomized placebo controlled study.

The study outcome showed that both the drugs Telmisartan and Amlodipine had similar effects on the systolic BP and diastolic BP in a positive manner.¹⁰

IMPORTANT TRIALS SHOWING SUPERIORITY OF TELMISARTAN

The ongoing Telmisartan alone and in combination with Ramipril global endpoint trial (ONTARGET) and Telmisartan randomized assessment study in Ace intolerant subject with cardiovascular diseases (TRANSEND) are the two important trials.

In the ONTARGET trial it was shown that when Telmisartan was given alone it showed 95% of the vascular properties of Ramipril and was an effective as Ramipril. The ONTARGET trail also demonstrated that the combination therapy of ARB (Telmisartan) and Ace inhibitor (lisinopril) does not offer any additional benefit. On the other hand the combination therapy using these two drugs resulted in a higher incidence of hypotension, renal dysfunction, hyper kalmia, syncope, and a higher probability of renal dysfunction that may require dialysis.¹¹

In the TRANSEND study, Telmisartan was compared with the placebo treatment. In this study it was observed that Telmisartan was well tolerated even when compared with patients who were intolerant to Ace inhibitors.¹¹

The frequency of left ventricular hypertrophy was much less In the Telmisartan group as compared to lisinopril group. Also Telmisartan reduced chances of new onset left ventricular hypertrophy.¹²

TELMISARTAN IN INDIAN HYPERTENSIVE PATIENTS

Telmisartan has gained acceptability worldwide as an effective antihypertensive agent. In India also a survey conducted has shown that 73% of physicians prescribe Telmisartan as a first line antihypertensive agent.¹³

It is specially used when in hypertensive patients diabetes is a comorbid condition.

Studies, especially a meta-analysis has shown that Telmisartan alone

and also in combination with other antihypertensive agents has shown efficacy.

Importantly in patient with hypertension and coronary artery disease the initiation of Telmisartan caused a reduction of mean SBP from 163 to 143 mmHg. Mean DBP was also reduced from 94 to 84 mmHg.

In CKD patients there was a moderate decrease of SBP from 158 to 156 mmHg. When treated with Telmisartan alone. Also the diastolic BP showed a decline from 94 to 90 mmHg.

Amongst patient with comorbid diabetes 30.5% patients achieved their systolic BP. Reduction goal when treated with Telmisartan similarly a higher percentage of 40.5 % patients achieved their DBP goal with Telmisartan.

CONCLUSION:-

Telmisartan is now an essential first line treatment modality in the management of hypertension. Compared to the other ARBs Telmisartan is a preferred drug as it controls blood pressure, reduces insulin resistance and also lowers fasting blood sugar.

Telmisartan is now a frontline drug due to its myriads of benefits particularly hypertension with diabetes as a comorbid condition.

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