

G. Mancia

Evidence from a large number of epidemiological studies has demonstrated the importance of elevated blood pressure (BP) as a risk factor for developing cardiovascular disease (CVD). The relationship between BP levels and risk of CVD events is continuous, consistent, and independent of other risk factors.

Further emphasis has been added by the 2007 European ESH/ESC Guidelines highlighting the need to consider not only BP level, but also other CV risk factors and target organ damage (TOD) to determine the global CV risk and to define patients at low, moderate and high CV risk.

In fact, individuals at high cardiovascular risk, a very common entity, need treatment strategies that differ for many important aspects from those to be implemented in patients with a low or a moderate risk. The two main reasons are the high prevalence of multiple risk factors and the frequency of subclinical organ damage.

Therapeutical trials using various therapeutic classes have demonstrated to improve prognosis in different patient populations at high risk. Based on the outcome of these trials recent guidelines recommend that in addition to the protection due to the BP reduction the selected treatment should also have direct protective properties on end organs, such as the heart, brain, and kidney. Finally, since the treatment will generally be used chronically and in combination with many other drugs, it should have a favorable interaction profile and, of course, be well tolerated by the patient. In this context, long-acting once-daily drugs are more convenient for the patient, resulting in increased treatment compliance.

R Agrawal

Telmisartan, a widely used AT(1) receptor antagonist (ARB), is a highly selective compound with high potency, a long duration of action and a tolerability profile similar to placebo. Due to its longer half-life, PRITOR®/KINZAL® (telmisartan) offers more sustained blood pressure (BP) control, especially at the end of the dosing period. While PRITOR®/KINZAL® is highly effective in the control of BP there are increasing substance-specific data available showing its benefits with respect to improved cardiovascular disease outcomes and reduced end-organ damage.

In line with long standing tradition and experience from Bayer AG and to underline the preliminary findings with telmisartan, Bayer Schering Pharma (BSP) has undertaken an extensive programme of clinical trials in BP-control & end-organ protection. BSP is also Co-sponsor of the two landmark trials: PROTECTION® and ONTARGET®.

The objective of the worldwide PROTECTION® (Programme of Research to show Telmi-sartan End-organ protection) study programme was to evaluate the preventive effect of telmisartan in patients with arterial hypertension and/or diabetes and early target organ disease. The programme includes 10 trials with 6,875 patients from 32 countries and comprises two areas of clinical research: 1) treatment of arterial hypertension in special patient populations, such as those with type 2 diabetes and hypertension, renal impairment with albuminuria, and obese subjects with hypertension, and 2) renal protection.

The PROTECTION trial programme telmisartan has been shown to be efficient in:

- Sustained BP reduction (PRISMA I&II)
- Elderly population
- Diabetes and renal protection
- LV hypertrophy

The ONTARGET® trial was designed to clarify whether PRITOR®/KINZAL® could confer blood pressure-independent cardio & vascular protection in high-risk patients whose blood pressure was well controlled equal to the current gold standard (and if combination therapy would provide additional protection).

R. Asmar

Evidence from a large number of therapeutical studies has demonstrated the importance of inhibition of the renin-angiotensin system (RAS) as a key strategy in the modern management of cardiovascular (CV) protection and prevention of morbidity and mortality in patients at high CV risk. However, most of these studies have been conducted using angiotensin-converting enzyme inhibitors (ACEI). Throughout the last years angiotensin receptor blockers (ARBs) have been extensively researched in prospective studies but solid evidence was lacking on the role of ARBs in this indication and in this population.

The ONTARGET[®] Trial Programme is the first landmark trial designed to answer this important question. The ONTARGET[®] Trial Programme constitutes the largest cardiovascular morbidity-mortality trial with an ARB ever undertaken. Over 31,000 CV high-risk patients with either normal or controlled BP, followed for 3.5 to 6 years, in 40 countries and thus more than 150,000 patient years of data have been included.

The first results of the trial show that:

1. telmisartan is the first ARB demonstrating that it can be prescribed on top of current best-practice treatments in high risk patients to prevent CV morbidity and mortality;
2. telmisartan in this well controlled patient population is as protective as the gold standard ACEI ramipril, but with greater tolerability even in a population selected to tolerate ACE inhibitors

In addition the study results provide evidence that combination therapy of ramipril and telmisartan at the studied doses does not provide additional protective benefits in this high-risk population.

In conclusion the results of the ONTARGET[®] Trial Programme demonstrate that the ARB telmisartan is effective and well tolerated associated with a high efficacy : tolerability ratio. Therefore, the use of telmisartan in this indication and in this population may lead in daily clinical practice to greater CV protection and higher treatment compliance.