Aliskiren: Is Combination Therapy with Angiotensin Converting Enzyme Inhibitors (ACE-I) or Angiotensin Receptor Blockers (ARBS) still a Possibility?

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Aliskiren is a blood pressure-lowering agent, which is the first representative of a class of orally active renin inhibitors that directly blocks the Renin-Angiotensin-Aldosterone-System (RAAS) at its rate limiting step. Aliskiren reduces blood pressure by direct renin inhibition and causes a net reduction in plasma renin activity, angiotensin II and aldosterone levels. Aliskiren is marketed in Canada by Novartis under the trade name Rasilez. Until recently, aliskiren has been used in combination with angiotensin converting enzyme inhibitor (ACE-I) or angiotensin receptor blockers (ARBs) to reduce blood pressure to target values via a synergistic blockade of the renin-angiotensin system (RAS).

Only December 2011, Health Canada issued an alert following the ALTITUDE (Aliskiren Trial in Type 2 diabetes Using cardio-renal Disease Endpoints) study at its rate limiting step. Aliskiren reduces blood pressure by direct renin inhibition and causes a net reduction in plasma renin activity, angiotensin II and aldosterone levels. Aliskiren is marketed in Canada by Novartis under the trade name Rasilez. Until recently, aliskiren has been used in combination with angiotensin converting enzyme inhibitor (ACE-I) or angiotensin receptor blockers (ARBs) to reduce blood pressure to target values via a synergistic blockade of the renin-angiotensin system (RAS).

Not only aliskiren products were discouraged in combination with ACE-I or ARBs in diabetic and kidney impaired patients, but also in all patients as a precautionary measure [4]. The above data led clinicians and investigators to research the utilization of the above discouraged combination of aliskiren with angiotensin converting enzyme inhibitors (ACE-I) or angiotensin receptor blockers (ARB) in patients with heart failure, a condition associated with an intense RAS activation [5]. Dual blockade of RAS via ACE-I/ARB combination therapy has proven beneficial in the past. As such, dual blockade of the RAS using aliskiren/ACE-I or aliskiren/ARB combination is being examined in pilot clinical trials ATMOSPHERE and ALOFT. Until patients enrolled in ATMOSPHERE and ALOFT pilot trials are willing to sign an updated consent form of their willingness to proceed with the trial [5], no concrete evidence will be available on the safety and efficacy of the aliskiren/ACE-I or aliskiren/ARB combination therapy and as such combination therapy should be discouraged.

References