

Renin inhibitors are effective in lowering blood pressure

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| Clinical question | How effective are renin inhibitors in lowering blood pressure (BP) in primary hypertension? |
| Bottom line | The 6 trials compared the effects of different doses of aliskiren against placebo. Aliskiren had a dose-related BP lowering effect better than placebo. Aliskiren 300mg significantly lowered both systolic blood pressure (SBP) and diastolic blood pressure (DBP) as compared to aliskiren 150mg (SBP -8.7 and DBP -5.0mmHg compared to -5.5 and -3.0mmHg). This effect is similar to that determined for angiotensin converting enzyme (ACE) inhibitors and angiotensin receptor blockers (ARBs). |
| Caveat | Aliskiren was the only renin inhibitor studied in these trials. No data were available to assess the effect of aliskiren on heart rate and pulse pressure. The trials were too short (8-13 weeks) to assess side effects, and they were not adequately powered to detect differences in adverse effects between aliskiren and placebo. |
| Context | The renin-angiotensin-aldosterone system is an important target site for 5 antihypertensive drug classes: beta-blockers, renin inhibitors, ACE inhibitors, ARBs and aldosterone inhibitors. Renin inhibitors prevent the formation of both angiotensin I and angiotensin II. They do not affect kinin metabolism and may produce fewer adverse effects, such as dry cough or angioedema, than ACE inhibitors. |
| Cochrane Systematic Review | Musini VM et al. Blood pressure lowering efficacy of renin inhibitors for primary hypertension. Cochrane Reviews 2008, Issue 4. Article No. CD007066. DOI: 10.1002/14651858.CD007066.pub2. This review contains 6 trials involving 3694 participants who were followed for approximately 6 weeks. |
| PEARLS 121, November 2008, written by Brian R McAvoy | |

[References]

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