

PEARLS

Practical Evidence About Real Life Situations



Nous connaissons l'effet hypotenseur souvent trop modeste d'une monothérapie par inhibiteurs de l'ECA. Mais dans notre décision pour un inhibiteur de l'ECA nous nous basons aussi sur son effet néphroprotecteur et antiremodeling.

Bruno Kissling

ACE inhibitors have a modest blood pressure lowering effect

PEARLS No. 123, November 2008, written by Brian R McAvoy

Clinical question: How effective are angiotensin converting enzyme (ACE) inhibitors in lowering blood pressure (BP) in primary hypertension?

Bottom line: Compared to placebo, the BP lowering effect of ACE inhibitors is modest; the magnitude of trough BP lowering at one-half the manufacturers' maximum recommended dose and above is -8 mm Hg for systolic BP and -5 mm Hg for diastolic BP. Furthermore, 60 to 70% of this trough BP lowering effect occurs with recommended starting doses. No ACE inhibitor appears to be any better or worse in terms of BP lowering ability.

Caveat: Due to lack of reporting and the short duration of these trials (3 to 12 weeks), this review did not provide a good estimate of the harms associated with this class of drugs.

Context: ACE inhibitors are commonly used for the treatment of elevated blood pressure. This class includes drugs such as ramipril, captopril, enalapril, fosinopril, lisinopril and quinapril. Despite over 20 years of research evidence and clinical use of ACE inhibitors, the dose-related BP lowering effect of this antihypertensive drug class is still not known.

Cochrane Systematic Review: Heran BS et al. Blood pressure lowering efficacy of angiotensin converting enzyme (ACE) inhibitors for primary hypertension. Cochrane Reviews 2008, Issue 4. Article No. CD003823. DOI: 10.1002/14651858.CD003823.pub2.

This review contains 92 trials involving 14 different ACE inhibitors and 12,954 participants.



Dans l'effet hypotenseur équivalents aux inhibiteurs de l'ECA mais avec un meilleur profil d'effets indésirables: pratiquement pas d'œdème angioneurotique, pas de toux irritative.

Bruno Kissling

Renin inhibitors are effective in lowering blood pressure

PEARLS No. 121, November 2008, written by Brian R McAvoy

Clinical question: How effective are renin inhibitors in lowering blood pressure (BP) in primary hypertension?

Bottom line: The six trials compared the effects of different doses of aliskiren against placebo. Aliskiren had a dose-related BP lowering effect better than placebo. Aliskiren 300 mg significantly lowered both systolic blood pressure (SBP) and diastolic blood pressure (DBP) as compared to aliskiren 150 mg (SBP -8.7 and DBP -5.0 mm Hg compared to -5.5 and -3.0 mm Hg). 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 five 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.

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PEARLS

PEARLS are succinct summaries of Cochrane Systematic Reviews for primary care practitioners. They are developed by the Cochrane Primary Care Field and funded by the New Zealand Guidelines Group.

PEARLS provide guidance on whether a treatment is effective or ineffective. PEARLS are prepared as an educational resource and do not replace clinician judgement in the management of individual cases.

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