

P80: Blockade of renin-angiotensin system in diabetic nephropathy

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Introduction: Studies suggest that the blockade of renin-angiotensin system, using angiotensin receptor antagonists or angiotensin converting enzyme inhibitors, alone or in combination, confers renal protection in patients with diabetic nephropathy.

Objectives: This review aims to assess the renal protective effects of the referred drugs, the mechanisms of renal protection and compare the efficacy of monotherapy and combination of medications.

Materials and Methods: A descriptive systematic review of recently published studies was performed. The search was made in *Pubmed* and the selection criteria were clinical trials performed in humans, published in English between 2005 and 2014. The articles were eligible for analyses when observed the association between the blockade of renin-angiotensin system with diabetic nephropathy, respecting the selection criteria and if answers to the research question.

Results and Discussion: Twenty-four studies were summarized in a table, where the following parameters are evaluated: description, size and average age of the sample, length of treatment, the medication used and it's daily dose, proposed mechanism of renal protection and the treatment outcome. With monotherapy it was verified that the medication used provide renal protection, but is not possible to determinate the most effective medication with fewer side effects. For combination therapy there are conflicting results. Two studies concluded that blockade of the renin-angiotensin system with the combination has a greater renal protective effect against monotherapy. Others found that combination and monotherapy were equally effective in renal protection. Another one found that combination has not superior benefit over monotherapy and concluded that combination is likely to exacerbate proteinuria.

Conclusion: The blockade of renin-angiotensin system, using angiotensin converting enzyme inhibitors or angiotensin receptor antagonists, alone or in combination, is associated with a renal protective effect both in patients with risk of developing diabetic nephropathy and with diabetic nephropathy already established.

References

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