Anti-anginal drugs: Systematic review and clinical implications

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Abstract

Background:

The cornerstone of the treatment of patients affected by stable angina is based on drugs administration classified as first (beta-blockers, calcium channel blockers, short acting nitrates) or second line treatment (long-acting nitrates, ivabradine, nicorandil, ranolazine and trimetazidine). However, few data on comparison between different classes of drugs justify that one class of drugs is superior to another.

Methods:

We performed a systematic review of the literature following PRISMA guidelines. Inclusion criteria: i) paper published in English; ii) diagnosis of stable coronary disease; iii) randomized clinical trial; iv) comparison of two anti-angina drugs; v) a sample size >100 patients; vi) a follow-up lasting at least 2 weeks; vii) paper published after 1999, when a meta-analysis of trials comparing beta-blockers, calcium antagonists, and nitrates for stable angina of Heidenreich et al. was published. Outcome: to establish whether the categorization in first and second line antianginal treatment is scientifically supported.

Results:

Eleven trials fulfilled inclusion criteria. The results show that there is a paucity of data comparing the efficacy of antianginal agents. The little data available show that there are not compounds superior to others in terms of improvement in exercise test duration, frequency of anginal attacks, need for sub-lingual nitroglycerin.

Conclusion:

The categorization of antianginal drug in first and second line is not confirmed.

Keywords:

Beta-blockers; Ivabradine; Stable angina; Calcium channel blockers; Ranolazine; Trimetazidine