Are beta blockers more effective than calcium channel blockers in controlling heart rate in patients with Atrial Fibrillation?

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Atrial fibrillation is the most common sustained cardiac arrhythmia and results in significant mortality and morbidity predominantly due to ischemic stroke and heart failure. The prevalence is rising due to an increasing elderly population. Improved management strategies for ischemic heart disease and heart failure has resulted in a longer life expectancy and therefore, increases the likelihood of developing AF secondary to these cardiac conditions. The American College of Cardiology, European College Society of Cardiology and NICE recommend a beta-blocker or a rate limiting calcium-channel blocker as first line treatment for controlling heart rate in patients who are haemodynamically stable. In clinical practice, there seems to be debate among clinicians as to the superiority of one agent over the other. Searches were conducted in November 2015 on Embase (1974 to 2015 November), Ovid Medline (1946 to November week 2, 2015) and the Cochrane database. Four main facets were searched; ‘atrial fibrillation’, ‘beta-blockers’, ‘calcium-channel blockers’ and ‘rate control’. In total 109 (n=109) papers were returned. The duplicates were removed leaving 93 (n=93) papers. All titles were reviewed and 74 were removed as they were irrelevant with regards to the question. 19 (n=19) abstracts were pursued out of which 14 were discarded for not meeting the eligibility criteria. Statistical analysis was carried out using the Review Manager software. The results showed that calcium-channel blockers were more effective than beta-blockers in controlling the heart rate at 20 minutes with a trend towards significance.

Biography

Mohammad Murtaza Zaman has completed his MBBS at Army Medical College Rawalpindi and went to United Kingdom for further training. Subsequently, he went through UK foundation training, core medical training and passed his MRCP exams. Currently, he is pursuing his Master’s degree in Cardiology at Kings College London as well as a Fellowship in Cardiology at Lister Hospital. His goal is to be trained as an Interventional Cardiologist.

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