

Beta-blockers for heart rate control in atrial fibrillation

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Heart rate control has been confirmed as a useful alternative therapeutic strategy for atrial fibrillation (AF) compared with rhythm control by many clinical studies. Beta-blockers have been historically used for the heart rate control with digitalis or Ca antagonists. However, because all of the beta-blockers used to treat AF have been considered as belonging to a single class, there is little evidence regarding their effectiveness, such as heart rate and blood pressure reduction, or adverse reactions for individual beta-blockers. Moreover, because the doses of beta-blockers are widely varied among countries, the usage has been based upon try and error by experience in clinical practice. Recently, 2 clinical studies from Japan have addressed this issue, MAIN-AF with oral bisoprolol and J-LAND study with intravenous landiolol. Both of the drugs are beta1-selective blockers. In our clinical trials, the former is used for AF without heart failure and the latter for AF with heart failure. The 2 studies examined the usefulness of single beta-blocker in a short-term. In this seminar, I introduce the results of these studies, and discuss about the issues regarding beta-blockers in the rate control strategy in AF.