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Abstract 30: Single Dose Ivabradine 15mg Is Comparable To Oral Metoprolol 50mg In Reducing Heart Rate For Cardiovascular Ct Angiography (ccta)



Mudassar Baig (MBBS. MRCP)¹, Hassaan Ahmed (MBBS)¹, Ammar Nazir (MBBS. MRCP)¹, Amir Anwar (MBBS. MRCP)², Yogesh Raja (MBBS. MRCP)¹

¹ Sunderland Royal Hospital, Sunderland UK, Newcastle Upon Tyne, United Kingdom

² Royal Bolton Hospital, Bolton, United Kingdom

Introduction: Oral Metoprolol has been used traditionally to reduce heart rate for Cardiovascular CT angiography. Ivabradine is relatively new drug that has been used and shown some promising features in reducing heart rate in patients with sinus rhythm. Our aim was to compare the use of single dose of Ivabradine 15mg & oral Metoprolol 50mg as pre-treatment for CT coronary angiogram to reduce heart rate.

Methods: Data was obtained retrospectively from April 2016 to October 2016. We made notes of: 1. Total number of patients given Oral Ivabradine or Metoprolol. 2. Average heart rate reductions 3. Average use of IV metoprolol during the scanning 4. Adequate heart rate reduction to perform CT coronary angiogram

Results: Out of 66 patients 23 (35%) were given oral metoprolol 50mg & 37 (56%) were given Ivarbradine 15mg while 5 (8%) had baseline heart rate below 60bpm, not requiring pre-medication.

Ivabradine was used in patient with contraindications to beta blockers (46%), heart rate > 80bpm on arrival (35%) or patients already on beta blockers with inadequate heart rate control (19%). Adequate heart rate reduced in 87% (20 patients) in metoprolol group and 89% (33 patients) in Ivabradine group. Both Ivabradine and metoprolol were effective in reducing heart rate at one and two hours as shown (Figure 1 & 2). One third of patients in Metoprolol group needed IV metoprolol while 75% of patients in Ivabradine group needed IV metoprolol.

Conclusions: 1. Both Ivabradine and metoprolol are effective in reducing heart rate adequately and are comparable. 2. Maximum heart rate reduction occurs at one hour with marginal change in heart rate at 2 hour 3. Additional use of oral metoprolol 25mg at one hour may be helpful in reducing heart rate and IV metoprolol use in Ivabradine group.

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