

REFERENCE

Hasbrouck M, Nguyen TT. Acute management of atrial fibrillation in congestive heart failure with reduced ejection fraction in the emergency department. Am J Emerg Med. 2022 Apr 6;58:39-42.

PMID: 35623182.

SUMMARY

In HFrEF patients with AF, there was no difference in total adverse events in patients treated with IV diltiazem compared to metoprolol. However, the diltiazem group had a higher incidence of worsening CHF symptoms defined as increased oxygen requirement within four hours or initiation of inotropic support within 48 h.

STUDY OBJECTIVE

- To compare the incidence of adverse effects in the HFrEF patient population whose AF with RVR was treated with IV diltiazem or metoprolol in the ED.

STUDY DESIGN

- Single center, retrospective review included patients ≥ 18 years old with HFrEF who presented in AF with RVR and received IV diltiazem or metoprolol in the ED.

STUDY INTERVENTION & COMPARISON

- IV diltiazem or metoprolol

RESULTS

- Primary Outcome
 - Overall adverse effects for diltiazem and metoprolol were similar (32% vs. 21%, $P = 0.217$).
- Secondary Outcomes
 - Significantly higher incidence of worsening heart failure symptoms within the diltiazem group (33% vs 15%, $P = 0.019$)
 - Rate control failure at 60 min did not differ significantly between diltiazem and metoprolol (51% vs 62%, $P = 0.277$).

ADDITIONAL READINGS

- Jandali M.B.: Safety of intravenous diltiazem in reduced ejection fraction heart failure with rapid atrial fibrillation. Clin Drug Investig 2018; 38: pp. 503-508.

- Hirschy R., Ackerbauer K.A., Peksa G.D., O'Donnell E.P., DeMott J.M.: Metoprolol vs. diltiazem in the acute management of atrial fibrillation in patients with heart failure with reduced ejection fraction. *Am J Emerg Med* 2019; 37: pp. 80-84.
- Demircan C., Cikrikler H.I., Engindeniz Z., et. al.: Comparison of the effectiveness of intravenous diltiazem and metoprolol in the management of rapid ventricular rate in atrial fibrillation. *Emerg Med J* 2005; 22: pp. 411-414.
- Kotecha D., Piccini J.P.: Atrial fibrillation in heart failure: what should we do?. *Eur Heart J* 2015; 36: pp. 3250-3257.