

Comparison of direct-acting oral anticoagulants in non-obese and obese patients with atrial fibrillation

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Introduction: Currently, there are four direct-acting oral anticoagulants (DOACs) approved in the United States. While dabigatran is a direct thrombin inhibitor, rivaroxaban, apixaban, and edoxaban are factor Xa inhibitors. Though DOACs exhibit predominately renal elimination, there is limited evidence regarding safety and efficacy of these agents in the obese population.

The purpose of Study: The purpose of this research is to add to current literature regarding the safety and efficacy of DOACs in obese patients with atrial fibrillation (AF), as to date, there is no study that has specifically studied this population.

Study Design: This retrospective, observational study included adults prescribed a DOAC between January 1, 2010 and September 30, 2016 in a multi-disciplinary outpatient AF clinic at a large academic medical center.

Methods: The primary objective is to compare incidence of thromboembolic or bleeding events in patients with AF with body mass index (BMI) <30 kg/m² to patients with BMI ≥30 kg/m². Secondary objectives are to compare the incidence of events with each DOAC separately. Pearson Chi-Square and Fisher's Exact Test were used when

appropriate.

Results: Preliminary data consists of 344 patients. The primary composite endpoint of thromboembolic and bleedings occurred in 44 (27%) of patients with BMI <30 kg/m² versus 32 (18%) patients with BMI ≥30 kg/m² ($p=0.038$). In a subgroup analysis of dabigatran, stroke or bleed rate was 22% (n=4) in non-obese patients versus 11% (n=2) in obese patients ($p=0.37$). In the rivaroxaban group, stroke or bleed rate was 29% (n=18) in non-obese patients versus 20% (n=19) in obese patients ($p=0.22$). In the apixaban group, stroke or bleed rate was 27% (n=22) in non-obese patients versus 16% (n=11) in obese patients ($p=0.11$). In the edoxaban group, there was one event in each arm.

Conclusion: Preliminary data suggests patients with BMI ≥30 kg/m² do not have higher incidence of thromboembolic or bleeding events when compared to patients with BMI <30 kg/m².

Biography

Huyentran Tran has received her Doctor of Pharmacy degree from Loma Linda University School of Pharmacy (LLUSP) in 2010. She has completed a PGY1 Pharmacy Practice Residency at Desert Regional Medical Center in Palm Springs and a PGY2 Cardiology Specialty Residency at LLUSP. She has joined the LLUSP faculty in 2012. Currently, she participates in a multidisciplinary collaborative team at LLU International Heart Institute and LLU Medical Center to provide comprehensive care for patients with cardiovascular disorders and serves as a preceptor for students and residents. She is the Coordinator of LLU PGY2 Cardiology Pharmacy Residency Program.

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