

Direct oral anticoagulants versus left atrial appendage closure in elderly patients (>80) with atrial fibrillation: results from a propensity matched analysis in real-life patients

B. Caneiro¹, S. Raposeiras-Roubin¹, E. Abu Assi¹, R. Estevez-Loureiro¹, R. Gonzalez-Ferreiro², G. Bastos Fernandez¹, A. Diego Nieto², I. Cruz Gonzalez², J. Rodes Cabau³, A. Iniguez Romo¹

¹Hospital Álvaro Cunqueiro, Cardiology, Vigo, Spain; ²Complejo Asistencial Universitario de Salamanca, Salamanca, Spain; ³Centre de Recherche de l'Institut Universitaire de Cardiologie et de Pneumologie de Quebec, Quebec, Canada

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Introduction: Information comparing left atrial appendage closure (LAAC) to direct oral anticoagulation therapy (DOAC) is scarce.

Purpose: Our aim is to compare the clinical outcomes between LAAC and DOACs of an elderly population (over 80 years-old).

Methods: We retrospectively collected 1144 patients with atrial fibrillation over 80 years old from three different tertiary hospitals. 970 patients have received DOACs and 174 patients have undergone LAAC. We have performed a propensity score matching analysis (PSM), with a caliper of 0.2. After propensity score with matching analysis, 58 patients received DOACs alone and 58 patients treated with LAAC with similar baseline risk factors, comorbidities and risk scores were selected. Outcomes of DOACs and LAAC were assessed by Cox regression.

Results: Both groups had similar cardiovascular risk factors with more proportion of diabetic and hypertensive patients among LAAC group (37.4% and 90.2%, respectively vs 20.3% and 70.3%). Patients undergoing LAAC had more frequently history of bleeding, anemia or previous cancer. CHA2DS2VASc score was also significantly higher in these patients. During a median follow-up of 2.0 years (range 0.9–3.5) event rate for the combined endpoint of death, bleeding and embolic events was 24.9%. 81 em-

bolic events were recorded (27 patients had transient ischemic attacks and 52 were diagnosed of stroke and only 2 patients with pulmonary embolism and 2 more with peripheral embolic events). 131 bleedings were recorded with 1,5% of intracranial bleeding. After propensity score matching, no differences regarding the primary composite endpoint were found (HR 1.05, 95% CI 0.15–7.51; $p=0.955$). Bleeding events were more frequent in LAAC group, especially during the first three months, thereafter rates become similar in both groups with no statistically significant differences (HR 1.79, 95% CI 0.73–4.41; $p=0.205$) (Figure 1). We calculate the time to first bleeding for LAAC 0.9 ± 1.3 vs 1.7 ± 1.3 on DOACs. Mortality was numerically greater in patients on DOACs (31,8%) vs LAAC (26,4%). However, this finding did not reach statistical significance (HR 0.70, 95% CI 0.33–1.47; $p=0.343$).

Conclusions: LAAC has no differences in terms of embolic events, bleeding events and mortality compared to DOACs in a population of elderly patients over 80 years-old. In our population, LAAC is a strategy as safe and effective as DOACs and represents an alternative to consider in real life patients older than 80 years.

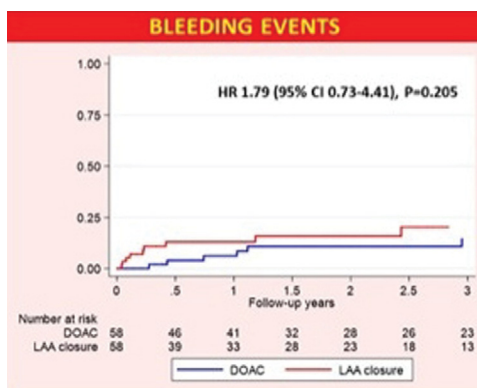


Figure 1