

The Effect of Conflict on Atrial Fibrillation Outcomes in the Middle East: A Multicenter International Cohort Study

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Abstract

Background: Atrial fibrillation (AF) outcomes are influenced by healthcare system integrity. This study assessed the impact of conflict-related disruption on AF outcomes in Syria compared to Jordan, a neighbouring country with a stable healthcare infrastructure.

Methods: We analysed 2,677 patients diagnosed with AF—657 from Tishreen University Hospital in Syria and 2,020 from the Jordanian AF (JoFib) Registry. Propensity score matching (1:1) was used to adjust for baseline characteristics. The primary outcomes were one-year all-cause readmissions and one-month incidence of cerebrovascular events (CVAs) or major bleeding. Multivariable logistic regression was performed to identify predictors.

Results: Syrian patients were younger (median 60 vs. 70 years), more likely to smoke (39% vs. 14%), and had higher rates of ischaemic heart disease (26% vs. 12%). One-year readmission rates were significantly higher in Syria (64% vs. 9%, $p<0.001$), as were one-month CVA (3% vs. 1%, $p<0.001$) and major bleeding events (4% vs. 0.5%, $p<0.001$). After matching ($n=657$ per group), these differences remained significant: readmission (64% vs. 7%), CVA (3% vs. 0.5%), and bleeding (6% vs. 0.3%). Syrian origin was independently associated with higher odds of readmission (OR 1.8, 95% CI 1.5–2.6), CVA (OR 6.5, 95% CI 2.5–16.5), and bleeding (OR 20.6, 95% CI 6.7–63.3).

Conclusion: AF patients in conflict-affected Syria experienced markedly worse outcomes than those in Jordan. These findings highlight the urgent need to improve access to medications, continuity of care, and chronic disease infrastructure in conflict zones.

Keywords

Atrial fibrillation, conflict, Middle East, healthcare outcomes, Syria, Jordan.