

Anticoagulants' Use in Non-Valvular Atrial Fibrillation Patients and Bleeding Risks - A Patients' Perspective Study Regarding Safety and Efficacy of Anticoagulants

Mohd Faiyaz KHAN ^{1*}, Muhammad Zahid IQBAL ², Yaman Walid KASSAB ³, Saad ALDOSARI ¹,
Salah-Ud-Din KHAN ⁴, Yahya Mansour SHAFIE ⁵, Amra SALAHUDDIN ⁶, Arwa HUDA ⁷,
Sadaf FAROOQUI ⁸, Alanazi Fahad Hafiz N ⁹, Ahmed Daheer M ALONAZI ⁹, Faris Abdullah K ALMUTAIRI
⁹, Alghamdi Fares Mohammed A ⁹, Almutairi Faisal Fahad S ⁹, Alqasem Abdulrahman Saad H ⁹,
Nahed Ibrahim ALOBAIDI ¹⁰, Muhammad Shahid IQBAL ¹

¹ Department of Clinical Pharmacy, College of Pharmacy, Prince Sattam bin Abdulaziz University, 11942 Alkharij, Saudi Arabia

² Department of Pharmacy Practice, Lahore Pharmacy College, Lahore Medical & Dental College, Lahore, Pakistan

³ Faculty of Pharmacy, Syrian Private University, Damascus, Syria

⁴ Department of Biochemistry, College of Medicine, Imam Mohammad Ibn Saud Islamic University, 11432 Riyadh, Saudi Arabia

⁵ Outpatient Pharmacy Department, Prince Sattam bin Abdulaziz University Hospital, Prince Sattam bin Abdulaziz University, Alkharij, Saudi Arabia

⁶ Jinnah Sindh Medical University, Karachi, Sindh, Pakistan

⁷ Jinnah Medical and Dental College, Karachi, Sindh, Pakistan

⁸ Department of Clinical Pharmacy, College of Dentistry and Pharmacy, Buraydah Private College, Buraydah, Qaseem, Saudi Arabia

⁹ Pharmacy Care Department, King Khaled Hospital, Alkharij, 16271 Alkharij, Saudi Arabia

¹⁰ Clinical Pharmacy Department, King Khaled Hospital, Alkharij, 16271 Alkharij, Saudi Arabia

SUMMARY. This study aimed to assess anticoagulants use and bleeding risks among non-valvular atrial fibrillation patients. This study also determined the effect of demographic characteristics and comorbidities on the bleeding episodes among non-valvular atrial fibrillation patients. A retrospective, observational study was conducted on a cohort of non-valvular atrial fibrillation patients treated with different anticoagulants. We identified 201 patients treated with different anticoagulants like warfarin, dabigatran, rivaroxaban and apixaban. After adjusting confounders, major or clinically relevant bleeding episodes were observed. Overall, out of 201 non-valvular atrial fibrillation patients, patients on warfarin were (n = 53; 26.36%), apixaban (n = 41; 20.39%), rivaroxaban (n = 65; 32.33%), and dabigatran (n = 42; 20.89%), respectively. According to the results obtained, dabigatran 31%, rivaroxaban 30.8%, warfarin 26.4%, and apixaban 19.5% caused bleeding episodes among the studied cohort of the non-valvular atrial fibrillation patients. In addition, hypertension, ACS/CAD and thrombocytopenia were the pure predictors of bleeding episodes. Major bleeding sites were gastrointestinal and intracranial. All anticoagulants were safe but varied in number and intensity of bleeding episodes.

RESUMEN: Este estudio tuvo como objetivo evaluar el uso de anticoagulantes y los riesgos de sangrado entre pacientes con fibrilación auricular no valvular. Este estudio también determinó el efecto de las características demográficas y las comorbilidades en los episodios de sangrado entre los pacientes con fibrilación auricular no valvular. Se realizó un estudio observacional retrospectivo en una cohorte de pacientes con fibrilación auricular no valvular tratados con diferentes anticoagulantes. Identificamos 201 pacientes tratados con diferentes anticoagulantes como warfarina, dabigatrán, rivaroxabán y apixabán. Después de ajustar los factores de confusión, se observaron episodios hemorrágicos mayores o clínicamente relevantes. En general, de 201 pacientes con fibrilación auricular no valvular, los pacientes tratados con warfarina fueron (n = 53; 26,36 %), apixabán (n = 41; 20,39 %), rivaroxabán (n = 65; 32,33 %) y dabigatrán (n = 42; 20,89 %), respectivamente. Según los resultados obtenidos, dabigatrán 31%, rivaroxabán 30,8%, warfarina 26,4% y apixabán 19,5% provocaron episodios hemorrágicos en la cohorte estudiada de pacientes con fibrilación auricular no valvular. Además, la hipertensión, el SCA/CAD y la trombocitopenia fueron los predictores puros de episodios hemorrágicos. Los principales sitios de sangrado fueron gastrointestinales e intracraneales. Todos los anticoagulantes fueron seguros pero variaron en el número y la intensidad de los episodios hemorrágicos.

KEY WORDS: ACS/CAD, anticoagulants, bleeding episodes, non-valvular atrial fibrillation.

* Author to whom correspondence should be addressed. E-mail: zahid.iqbal@lmdc.edu.pk