

ANTICOAGULANT TREATMENT

## **THROMBOEMBOLIC PREVALENCE IN MULTIPLE MYELOMA BEFORE AND AFTER THE INTRODUCTION OF DIRECT ORAL ANTICOAGULANTS: A LONGITUDINAL COHORT STUDY**

**A. Ramírez<sup>1</sup>, A. Orozco<sup>2</sup>, A. Sánchez<sup>3</sup>, F. Villalpa<sup>1</sup>, S. Burgos<sup>2</sup>, G. Cesarman<sup>3</sup>, G. Rodríguez<sup>1</sup>, Daniae Vieyra<sup>2</sup>, J. Aálvarez<sup>4</sup>, G. M. Flores<sup>3</sup>, S. González<sup>1</sup>, D. Martínez<sup>2</sup>, B. Cabello<sup>3</sup>, R. Espinoza<sup>3</sup>, O. Fernández<sup>3</sup>**

<sup>1</sup>Myeloma-clinic Hematology service, Centro Médico Nacional La Raza, Instituto Mexicano del Seguro Social, México City, México; <sup>2</sup>Myeloma-clinic Hematology service, Instituto Nacional de Nutrición Salvador Zubirán, México City, México; <sup>3</sup>Myeloma-clinic Hematology service, Instituto Nacional de Cancerología, México City, Mexico; <sup>4</sup>Centro Médico Nacional 20 de Noviembre, Ciudad de México, Mexico

Thromboembolic events are frequent non-hematologic complications of Multiple Myeloma (MM). This study aimed to quantify the prevalence of thromboembolic events in Mexican MM patients. We conducted a multicenter retrospective cohort study of patients aged  $\geq 18$  years from October 97 to October 2025. Thromboprophylaxis strategies included none, antiplatelet therapy, or anticoagulation (DOACs, VKA, or LMWH). Patients were stratified in pre-DOAC and DOAC-access era. The sample size was calculated, assuming an expected incidence of 10%, 95% confidence level, and an absolute precision of 3%. The required sample size was 384. Normality was assessed using the Kolmogorov-Smirnov test. Comparison between groups was performed using Student's t-test. The association between categorical variables was tested with the  $\chi^2$  test. Time-to-event analyses were conducted using Kaplan-Meier curves and the log-rank test. Multivariable analyses include logistic regression and Cox proportional hazard models. A total of 517 patients were included. Men accounted 53.6% and women for 46.4%, with a mean diagnosis age of 55.8 years. Renal involvement was present in 26.9%, and bone disease in 49%. Elevated DHL was observed in 14.9%, and 33.7% underwent autologous stem cell

transplantation. The IMPEDE-VTE score median was 6.71 (5-9, RIC 4). Baseline characteristics were similar between groups with and without thrombotic events. According to IMPEDE-VTE, 13% were low risk, 29.4% intermediate risk, and 56.75% high risk. 84.7% received thromboprophylaxis, mainly aspirin (42.6%), DOACs (31%), and vitamin K antagonists (9.9%). Major bleeding occurred in 0.4%. Thromboembolic prevalence was 8.3%. The mean time to thrombosis for the entire cohort was 4.6 months (95% CI 2.3-6.9). Patients' diagnoses in the pre-DOAC access era had a thrombotic incidence of 10.9% ( $n=35/322$ ), compared with 4.1% (8/195) in the DOAC access era ( $p=0.007$ ). Kaplan-Meier analysis in the pre-DOAC group showed a median time to thrombosis of 5.8 mo (95% CI 0.6-19.9) vs 1 mo (95% CI 0.0-4.1) in the DOAC era ( $p=0.012$ ). Cox regression did not identify independent predictors of thrombosis. Logistic regression demonstrated a significantly lower odds of thrombosis with anticoagulation compared with antiplatelet therapy ( $p<0.001$ ). In conclusion, the prevalence of thrombosis in this cohort was 8.3%. Expanded access to DOACs reduced thrombotic events, and the shorter time to thrombosis reflects a shorter follow-up, not increased risk.