

TEV E PATOLOGIE CARDIOVASCOLARI

REAL WORD MANAGEMENT OF ANTICOAGULANT THERAPY IN BRAIN METASTASIS: MOVING TOWARD A MULTIDISCIPLINARY APPROACH IN COMPLEX CASES.

E. Lotti¹, C. Manneschi², S. Fancelli², F. Scolari¹, F. Crudele¹, D. Poli¹, M. Berteotti¹, D. Rossini³, S. Pillozzi², L. Antonuzzo^{2,3}, R. Marcucci^{1,3}.

1 Disease Unit, Careggi University Hospital, Firenze; ²Oncology Unit, Careggi University Hospital, Firenze; ³Department of Experimental and Clinical Biomedical Sciences, University of Firenze, Firenze,.

Background: Patients with advanced solid tumors have an increased risk of thrombosis and are often on anticoagulation treatment with low molecular weight heparin (LMWH) or the new oral anticoagulant drugs (DOACs). Brain metastases (BMs) have an increased risk of intracranial bleeding (ICH), depending on systemic and locoregional treatments. However, existing literature consists of small case series, and prospective studies of LMWH and DOACs do not include BMs' patients. Our study aims to describe the impact of adverse events related to anticoagulant therapy, in a real word setting in patients with BMs.

Method: We retrospectively collected data of oncological patients with BMs treated between 2015 and 2024 followed by the Oncology Unit and the Atherothrombotic Disease Unit at Careggi University Hospital.

Results: We enrolled 301 patients with BMs; of these, 155 were treated mainly with LMWH (58.1%) or DOACs (24.5%).

Among patients who received anticoagulant therapy, 25 patients developed treatment-related complications. In particular, 10 patients (6.4%) experienced a thrombotic adverse event (AE), 12 patients (7.8%) experienced a hemorrhagic AE, and 3 patients (2.1%) experienced both complications. Of the 15 major hemorrhagic events, 6 occurred in the brain, 4 of which were intracranial. There was no significant difference in bleeding or thrombosis incidence between the LMWH and DOAC groups ($p = 0.57$). However, the time to onset of bleeding was three times longer than the time to onset of thrombosis (3.8 [95% CI 0-151.6] vs. 1.3 [95% CI 0-136.4]; $p = 0.37$).

Conclusion: Cancer patients with BMs have an increased risk of thrombosis, requiring anticoagulant treatment. DOAC therapy does not appear to increase the risk of bleeding. A multi-discipline approach is essential to best manage anticoagulant therapy allowing to be tailored to the individual patients bleeding risk.

Email: e.lotti78@gmail.com