Cognitive dysfunction and adverse events during oral anticoagulant: a prospective cohort study

P. Massoure, C. Nguyen

Laveran Military Teaching Hospital (HIA), Department of Cardiology, Marseille, France
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Background: Oral anticoagulants (AC), represent the leading cause of iatrogenic morbimortality in France. AC are widely prescribed among the elderly. The assessment of the cognitive dysfunction (CD) is not included within the common thrombotic and bleeding risk scores.
Purpose: The objective of this study was to examine an association between CD and adverse events (AE) in patients receiving oral AC.
Methods: A prospective monocentric cohort study was conducted in patients (≥60 years-old) on oral AC. Death, hemorrhages, falls, hospital readmission, thromboembolic events were collected over 6 months follow-up. Patients were included during an hospitalization for any medical or surgical condition and divided in three groups, according to their Mini Mental State Examination (MMSE): Group 1 (absence of CD) MMSE ≥27, Group 2 (mild CD) 24<mmse<26, >≤MMSE≤26, Group 3 (significant CD) MMSE ≤23.
Results: Among 120 patients (mean age: 82,2±8,8 years), the all-causes mortality (n=25) was significantly higher in the Group 3 (n=17, p=0,006); this also applies to the incidence of falls (n=34, p=0,009) or major hemorrhages (n=10, p=0,023). There was no thromboembolic event. Minor hemorrhages and hospital readmissions were not different in the 3 groups. Multivariate analysis shows a significant risk of mortality (OR 4.3, (p=0,025, IC [1,20–15,42]) in group 3.
Conclusion: After 6 months of follow up, the cognitive dysfunction was associated with mortality, major hemorrhages and falls among the elderly receiving oral AC. A systematic assessment of cognitive functions of these patients seems to be essential to analyze the global risk and the risks related to the AC treatment.</mmse<26,>