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904.OUTCOMES RESEARCH-NON-MALIGNANT CONDITIONS

Impact of Quality and Type of Anticoagulant Treatment, and Inflammatory Biomarkers on Quality of Life and Psychological Morbidity in Patients with Atrial Fibrillation: An Exploratory Study

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Background: Owing to increasing worldwide life expectancy, the step rise in the prevalence of atrial fibrillation (AF) represents an urgent public health issue. Indeed, AF can severely affect a patient's quality of life (QoL) since it is associated with serious outcomes, such as stroke, cardiac failure, and cognitive impairment/dementia, resulting in increased morbidity and mortality and a burden for health-care systems. Anticoagulation therapy prevents stroke in individuals with AF, whether with vitamin K antagonists (VKA) or direct oral anticoagulants (DOACs). So far, effective AF management is missing since its etiology is unraveled.

Within the research project [Cognitive Decline Risk Profiles and Quality of Life in Atrial Fibrillation: A Longitudinal Study-2022.072(057-DEFI/058-CE)] a pilot study was conducted to assess a dynamic cohort of AF outpatients who attended the anticoagulation clinic at Santo António University Hospital Center, a Portuguese university public hospital. In this study, QoL, distress and cognitive impairment in patients with AF was assessed considering quality and type of anticoagulant treatment.

Methods: With a cross-sectional design, quality of anticoagulation therapy was measured calculating Time in Therapeutic Range (TTR) using Rosendaal method for patients under VKA (TTR>70% as good control); for those patients under DOAC, the presence of plasma therapeutic levels of this drug, taking into account the time of blood sampling, meant an anticoagulant treatment of quality. QoL and distress were assessed by the Atrial Fibrillation Effect on Quality-of-life Questionnaire (AFEQT) and the Depression, Anxiety and Stress Scale (DASS-21), respectively. Cognitive impairment was assessed by the Montreal Cognitive Assessment (MoCA) scale. Data on sociodemographic, clinic [medical history including quality and type of anticoagulation therapy, stroke(CHA2DS2-VASc) and bleeding(HAS-BLED) risk scores, duration of illness) and inflammatory biomarkers were also collected.

Results: A total of 62 AF patients were included (mean age 74.4±10.2 years, 59.7% women) with a mean CHA2DS2-VASc of 4.3±1.6 and HAS-BLED of 2.6±1.2. Fifty patients (80.6%) were on VKA and twelve (19.4%) on DOACs (all in apixaban). Those individuals under VKA showed a mean TTR score of 77.1 ± 14.7% (67.4% with a good control) and 11 patients in apixaban presented DOAC therapeutic plasma level. Participants had an illness duration average of 16.02 years±10.62. The mean scores of AFEQT was 2.65 ± .93 showing a good QoL and for MoCA was 21.66 ± 3.90 indicating mild cognitive impairment. Regarding anxiety, depression, and stress (DASS-21) the mean scores were 4.27 ± 4.08, 6.52 ± 4.92 and 7.37 ± 5.37, respectively showing non-clinical psychological morbidity. Patients with higher plasmatic levels of C Reactive Protein (CRP) reported more depression (r= .482; p= .005) and those with a longer illness duration presented a higher level of cognitive impairment, (r= -.398; p= .001). No other associations were found between inflammatory biomarkers and psychological variables.

There were significant differences according to sex, age, and illness duration, with women reporting lower QoL (p = .002), higher depression (p = .004), higher stress (p = .005) and older patients (p = .017) as well as patients under VKA and longer disease duration reporting better TTR. (p = .007). No differences were found on patients' QoL (p = .342), anxiety (p = .370), depression (p = .167) and stress (p = .117), cognitive impairment, (p = .084) between good and non-good quality of anticoagulant treatment and between VKA versus DOAC therapy (p = .444).

Conclusion: The majority of the patients showed good quality of anticoagulation and QoL, but they revealed mild cognitive impairment. Patients' QoL, distress and cognitive impairment were independent of quality and type of anticoagulation treatment. Older AF patients, particularly those with longer diagnosis, should be assessed for cognitive function on a regular basis, preventing dementia and economic burden. The association of depression with higher levels of CRP in AF patients underlines the nature of these two inflammatory conditions that coexisting associate to worse outcomes. Future studies should assess

cognitive function over time to unravel the pathophysiology of cognitive decline and the effect of AF treatments on cognition to optimize and personalize AF therapy.

Disclosures No relevant conflicts of interest to declare.

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