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EXAMINING THE INCIDENCE OF MICROHEMATURIA IN PATIENTS RECEIVING RIVAROXABAN: THE IMPACT OF COMORBIDITIES

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Relevance. Thromboembolic events, such as stroke and myocardial infarction, pose significant clinical challenges, especially in patients with atrial fibrillation (AF). Rivaroxaban, a direct oral anticoagulant (DOAC), is widely used for stroke prevention in AF patients. However, bleeding complications, including microhematuria, remain a clinical concern. This study investigates whether comorbidities, particularly diabetes mellitus (DM) and chronic kidney disease (CKD), influence the risk of microhematuria in patients treated with rivaroxaban.

Aim: to evaluate the incidence of microhematuria in patients with AF treated with rivaroxaban and to determine whether comorbid conditions such as DM and CKD have a significant impact on its occurrence.

Materials and methods. A retrospective study was carried out at Clinical Hospital 4 in Minsk, Belarus, between the 1st of January 2022 and 31st of August 2022, involving 115 patients with atrial fibrillation who were prescribed a daily dosage of 20 mg of rivaroxaban. Among them, 47 had stage 3–4 CKD and 27 had DM. The median age of participants was 71 years (IQR: 63–80). A chi-square test was used to assess associations between microhematuria and comorbidities. Relevant literature from PubMed and Google Scholar, between the years of 2014–2024 was reviewed to support findings.

Results and their discussion. Microhematuria was detected in 18 patients (15.65%). From these, 6 had DM and 9 had CKD. Statistical analysis showed no significant correlation between the presence of DM or CKD and the incidence of microhematuria. No major bleeding events were observed. These results suggest that rivaroxaban is generally safe, even in patients with these comorbidities.

Conclusion. Microhematuria occurred in a minority of patients receiving rivaroxaban, with no significant association with DM or CKD. These findings support the continued use of rivaroxaban in AF patients with such comorbidities, though ongoing monitoring remains essential. Further research is needed to identify additional risk factors and optimize individualized treatment strategies.