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ABSTRACT N. PO16

ANTITHROMBOTIC TREATMENT AND OUTCOMES IN RETINAL VEIN OCCLUSION: A RETROSPECTIVE COHORT STUDY AND COMPARISON WITH HISTORICAL GROUP.

S.A. Malerba[1|2], M.T. Sartori[1], G. Libralon[1], C. Dalla Porta[1], P. Simioni[1].

[1]First Medical Clinic, Department of medicine- DIMED, Università degli studi di Padova; [2]Medicina Generale, Ospedale dell'Angelo, Mestre;.

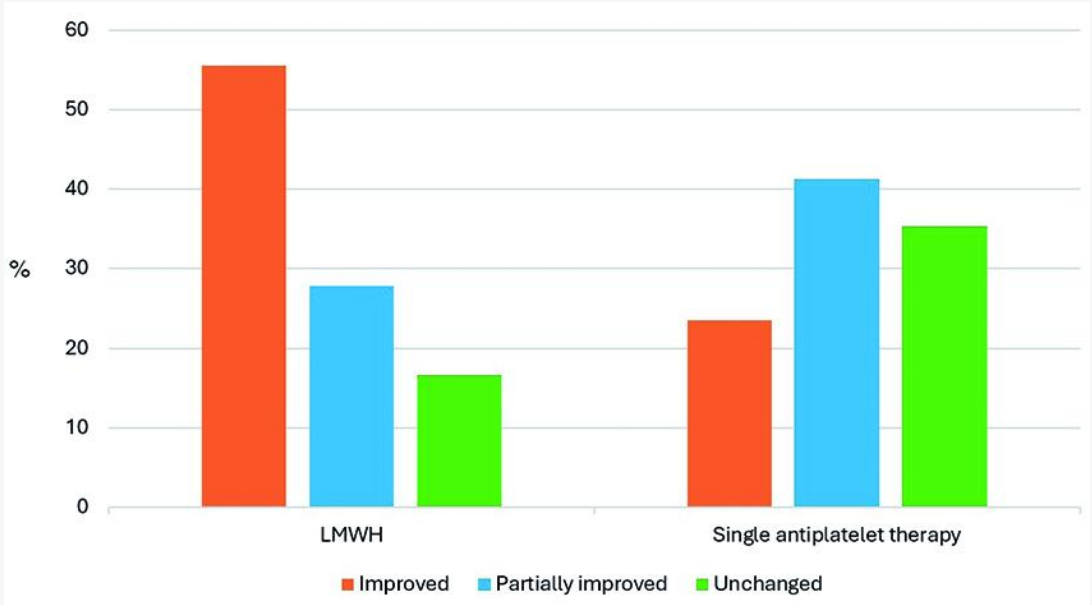
Background and aims: Retinal vein occlusion (RVO) is the second most common retinal vascular disease and a significant cause of visual impairment worldwide. Individuals with RVO are at increased risk of cardiovascular events, particularly stroke. However, antithrombotic management of RVO is a matter of ongoing debate. The primary aim of this study is to evaluate the cardiovascular risk factors in RVO, the impact of antithrombotic therapy on visual outcomes and the incidence of subsequent vascular events. Additionally, we aim to compare the clinical outcomes of RVO patients treated with heparin versus warfarin.

Methods: We conducted a retrospective observational single--centre cohort study. Consecutive patients with central (CRVO) and branch RVO (BRVO) confirmed by fluorescein angiography, evaluated between January 2014 and April 2025, were included. Cardiovascular risk factors, thrombophilia screening, age at onset, antithrombotic treatment both prior and following the diagnosis of RVO were evaluated. Patients with recent RVO onset were treated with heparin for 1-3 months while patients with late onset were treated only with antiplatelet therapy. They were followed every 6-12 months and the occurrence of vascular events was recorded. Data from this cohort were compared to an analogous historical group of patients enrolled at our centre between 2003 and 2009. These patients were treated with warfarin for at least three months or with aspirin, if antithrombotic therapy was refused or was contraindicated.

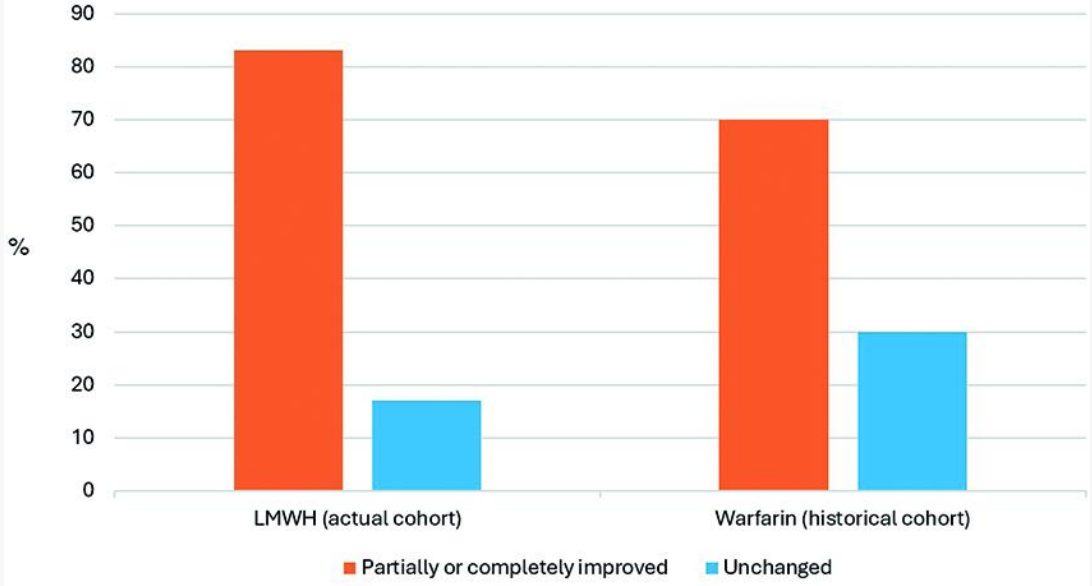
Results: A total of 46 patients were enrolled, including 36 CRVO and 10 BRVO; 45.7% of them were females. Among patients under 50 years of age, 30% (3/10) had a hereditary thrombophilia, compared to 8.3% (3/36) in patients older than 50 years. One or more cardiovascular risk factors were present in 38 (82.6%) patients, 5/10 (50%) in the younger group and 33/36 (91.3%) in the older group (p <.001). Antithrombotic treatment with heparin, with or without subsequent aspirin, administered according to cardiovascular risk, was associated with a greater rate of complete visual acuity improvement (55.6%) compared to those treated with antiplatelet therapy alone (22.2%) (p 0.04). Vascular events including recurrent RVO, cardiac and vascular events and ischemic stroke occurred in 5 patients (17.2%) after RVO, all in the older age group. No difference in cardiovascular events rates was found in the two groups of treatment (p 0.08). Most post-RVO events occurred in patients who were already taking aspirin prior to RVO (p 0.007). In the historical comparison group (n=132), vascular events occurred in 16 patients (14.4%). Actual and historical cohorts were comparable in terms of baseline number of cardiovascular risk factors (p 0.3) or incidence of cardiovascular events post-RVO (p 0.9). Partial or complete visual improvement was observed in 70% of warfarin historical patients and in 83.3% of patients in the recent heparin cohort, without statistically significant differences observed (p 0.15).

Conclusions: Cardiovascular risk factors are associated with RVO. In the actual cohort, heparin seems to be associated with better visual improvement compared to aspirin alone. No significant differences were observed in terms of outcomes between the historical warfarin and actual heparin patients. Patients who experienced a first RVO appeared to be at increased risk of cardiovascular events.

Email: *sarangelamalerba@gmail.com*



Prevalence of visual acuity outcome in antithrombotic and antiplatelet therapy. LMWH - Low Molecular Weight Heparin.



Prevalence of visual acuity outcome in antithrombotic therapy in actual and historical cohort. LMWH - Low Molecular Weight Heparin.