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OCULAR VASCULAR OCCLUSION IN 302 PATIENTS: A DIAGNOSTIC WINDOW TO FAMILIAL AND ACQUIRED THROMBOPHILIA

Poster Contributions
Poster Hall, Hall C
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Session Title: Vascular Medicine: Novel Risk Measures in Arterial Diseases
Abstract Category: 40. Vascular Medicine: Non Coronary Arterial Disease
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Aim: Our specific aim was to document the etiologic importance of thrombophilia among patients being evaluated for ocular vascular occlusion (OVO) including retinal vein occlusion (RVO, n=215), retinal artery occlusion (RAO, n=66), and non-arteritic anterior ischemic optic neuropathy (NAION, n =21) when compared to 110 healthy normal controls.

Methods: We evaluated familial and acquired thrombophilia in 302 patients referred for evaluation by retinologists, without typical risk factors for ocular thrombosis and/or severe ocular ischemic presentation.

Results: The 215 patients with RVO differed from normal controls for high homocysteine (41/207 [20%] vs 5/107 [5%], p=.0002), high anticardiolipin antibody (ACLA) IgM (19/204 [9%] vs 2/109 [2%], p=.016), high (>150%) Factor VIII (34/188 [18%], vs 7/103 [7%], p=.008), and low free protein S (17/186 [9%] vs 2/96 [2%], p=.025). The 66 patients with RAO differed from the 110 normal controls for high serum homocysteine (13/65 [20%] vs 5/107 [5%], p=.0035), high Factor VIII (16/64 [25%] vs 7/103 [7%], p=.002), and high (>150%) Factor XI (9/64 [14%] vs 3/101 [3%], p=.011). The 21 patients with NAION differed from the 110 normal controls by heterozygosity for the G20210A mutation of the prothrombin gene (4/19 [21%] vs 3/110 [3%], p=.0091).

Conclusions: In patients with OVO, familial and acquired thrombophilia are important etiologies. OVO is a diagnostic window for the presence of familial and acquired thrombophilia, an early warning system relevant for both ocular thrombotic events and for systemic thrombotic events.