

## Thrombophilic risk factors for Retinal Vein Occlusion

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### Abstract

The aim is to study risk factors for retinal vein occlusion (RVO), such as thrombophilic and cardiovascular risk factors (CRF). A retrospective consecutive case series of 60 patients with RVO was made, tested for CRF, hyperhomocysteinemia, lupic anticoagulant, antiphospholipid antibody and 5 gene variants: factor V (FV) Leiden (G1691A), factor II (PT G20210A), 5,1-methylenetetra-hydrofolate reductase (MTHFR; 677 C > T and 1298 A > C), plasminogen activator inhibitor 1 (PAI-1; 4 G/5 G). More than 1 CRF were present in 36 patients (60%), which had a significantly higher mean age at diagnosis ( $66.7 \pm 12.9$  versus  $59.5 \pm 13.7$  with  $\leq 1$  CRF,  $t(57) = -2.05$ ,  $p = 0.045$ ,  $d = 0.54$ ). Patients with thermolabile MTHFR forms with decreased enzyme activity (T677T or C677T/A1298C) had a significant lower mean age [ $57.6 \pm 15.1$ ;  $t(58) = 3.32$ ;  $p = 0.002$ ;  $d = 0.846$ ] than patients with normal MTHFR enzyme activity ( $68.5 \pm 10.2$ ). Regarding CRF and thermolabile forms of MTHFR, the mean age at diagnosis could be significantly predicted [ $F(2,56) = 7.18$ ;  $p = 0.002$ ] by the equation:  $64.8 - 10.3 \times (\text{thermolabile MTHFR}) - 5.31 \times (\leq 1\text{CRF})$ . Screening of MTHFR polymorphisms may be useful in younger RVO patients, particularly when multiple CRF are absent.

### Biography:

Maria J Vieira has completed her MD degree at the age of 25 years from Minho University, Portugal. She is a 2nd year resident of Ophthalmology in "Centro Hospitalar de Leiria", Portugal. She has 2 international publications as 1<sup>st</sup> author.

### Recent Publications:

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3. A new colorimetric peptide nucleic acid-based assay for the specific detection of bacteria
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5. Genome Sequence of Serratia plymuthica V4

