



ABSTRACTS: VOLUME 5, SPECIAL ISSUE

ABSTRACT

Observation of Thrombophilia Testing Panel among Hebron Population

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Background: Thrombophilia is abnormal blood coagulation that leads to an increased risk of blood tendency to clot. Genetic factors tested as a whole panel consist of seven genetic abnormalities: Factor V Leiden, Factor V, Prothrombin (Factor II), Beta Fibrinogen, Factor 8, MTHFR (C677T), MTHFR (A1298C), and four risk factors: Human Platelet Antigen, Angiotensin-converting enzyme (ACE), Glycoprotein IIIa (GP IIIa) and Plasminogen Activator Inhibitor-1 (PAI-1). In some cases protein c, protein s and Antithrombin may be added.

Objective: The aim of this study is to estimate the prevalence of thrombophilia and determine the correlation of specific inherited thrombophilia in adult women among the Hebron population.

Material and method: Data were obtained from Euro lab in Hebron, from January to December 2021, for 100 women, with a mean age of 27.3 years. The samples were extracted by strip assay method and analyzed by PCR.

Results: Our results showed differences in factors proportion between homozygosity (MTHFR (C677T) 17%, MTHFR (1298C)9%, Factor 8 6%, Beta Fibrinogen 3% and FV Leiden, FV and Prothrombin showed zero percentage) and heterozygosity (MTHFR (A1298C) 49%, MTHFR (C677T) 37%, Beta Fibrinogen 27%, Factor 8 and FV 22% FV Leiden 17% and Prothrombin 4%),



(table2), while risk factor homozygosity and heterozygosity proportion were PAI-1 (18%,52%) , ACE (13%49%), HPA and Glycoprotein IIIa (4%,30) respectively.

Conclusion: Four factors directly related to developing thrombophilia (FV Leiden, Prothrombin, MTHFR (C677T) and MTHFR (A1298C), the highest homozygous gene prevalent was MTHFR (C677T), while the highest heterozygous gene prevalent was MTHFR (A1298C).

Keywords: Thrombophilia, Factor V Leiden, MTHFR C677T, MTHFR (A1298C), Prothrombin, Palestinians.