

Inherited APCR and thrombophilic manifestations: a retrospective cross-sectional study...

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Introduction

Inherited, activated protein C resistance (APCR) is a major risk factor in patients with venous thromboembolism and vasculoplacental complication. In this study we were interested in highlighting the multifactorial pathogenesis of APCR so our aim was to analyze the APCR occurrence in patients with thrombophilic manifestation and the demographic and clinical properties in APCR patients.

Method

A retrospective cross-sectional analysis was carried out over a period of 66 months, from January 2018 to July 2023 at the Department of Laboratory Hematology and Blood Bank of Tlemcen University Hospital. This study focused on APCR positive cases. Data collection included the APCR test's results, demographic information, risk factors, clinical manifestations, family and treatment history.

Results

74 patients were included in the study: 19 men, and 55 women, a sex ratio M/F of 0,3.

Figure 1 – Distribution of the study population according to age

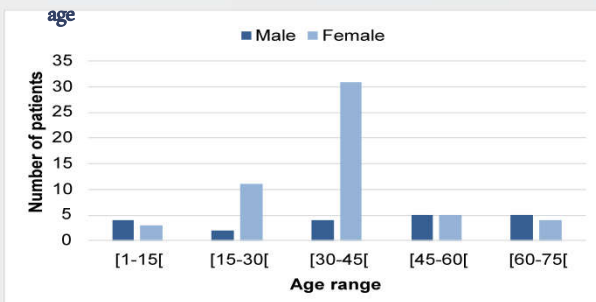


Figure 2 – Distribution of the study population according to risk factor

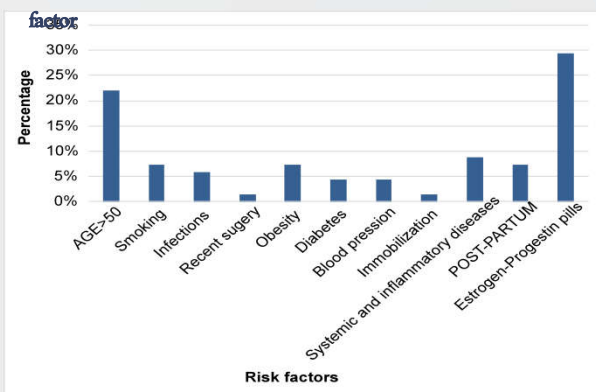


Figure 3 – Results of APCR chromometric assay

Variable	T	Min	Max	Average
Rate	74	47.5	118	86.60 ±14,01

T : total, Min : minimum, Max : maximum

Figure 4 – Thrombotic complication in APCR patients

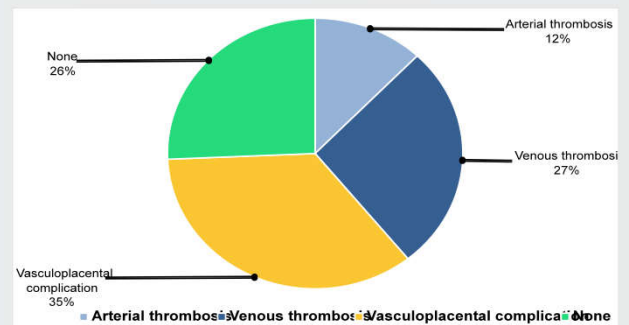
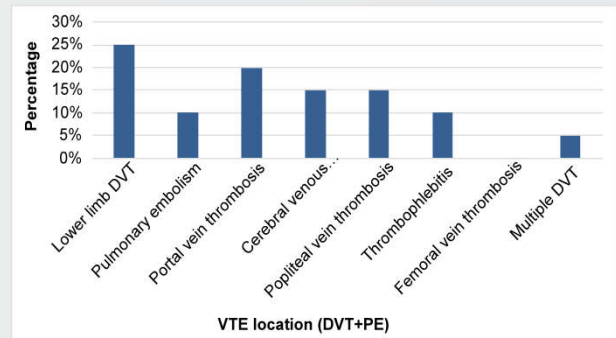


Figure 5 – Distribution of venous thrombosis according to their sites of occurrence



Discussion- conclusion

This study was presented, with a review of the literature highlighting that the thrombotic risk is further increased in the presence of additional risk factors. Evidence also suggested that the risk of PE is not as great as the risk of DVT. By identifying heritable thrombophilia, women might potentially prevent miscarriages, as well as serious maternal and neonatal complications. Patients with phenotypic resistance to APC have an increased risk for VTE and fetal loss. In view of this results, screening for APCR in patients with VT and their family can be justified, Algerian females with vasculoplacental complication should be supported by APCR screening. This approach may be helpful to fight this major problem by an appropriate antithrombotic treatment.

References

- 1) Kujovich J. L. (2011). Factor V Leiden thrombophilia. Genetics in medicine : official journal of the American College of Medical Genetics, 13(1), 1–16.