Genetic thrombophilia and pregnancy complications
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Background: Severe pregnancy complications such as preeclampsia, ablatio placentae, fetal growth retardation, and stillbirth are associated with increased risk for development of venous thromboembolism (VTE).

Goal: To investigate whether these complications are related to increased prevalence of genetic thrombophilic mutations.

Materials and methods: In this case-control investigation, 101 women with history of confirmed venous thromboembolism and pregnancy complication were studied. 102 women with normal pregnancies served as controls. Factor V Leiden mutation, prothrombin 20210G to A polymorphism, and methylenetetrahydrofolate reductase (MTHFR) 677C to T polymorphism were analyzed.

Results: At least one thrombophilic mutation was observed in 42 (41.6%) of women with pregnancy complications compared to 21 (20.6%) of women with normal pregnancies ($p=0.003$), factor V Leiden in 16 (15.8%) cases and 8 (7.8%) controls, prothrombin 20210A in 6 (5.9%) cases and 3 (2.9%) controls and homozygosity for MTHFR 677T, in 20 (19.8%) cases and 10 (9.8%) controls. Double and triple thrombophilic mutations were detected in 7 (6.9%) women with pregnancy complications compared to 0 in the control group.

Conclusions: Women with severe pregnancy complications and related venous thromboembolism have an increased frequency of genetic thrombophilic mutations.