

Abstract

Recurrent pregnancy loss (RPL) is a distressing experience that affects 1% of pregnancy cases. The etiology of RPL is not well characterized but thrombophilia is a major factor. There are genetic as well as acquired factors that may be involved in RPL. This study was conducted on 50 cases with RPL and 50 controls. Samples were collected between May and December 2014. The genetic factors that were evaluated included point mutations on Factor V (G1691A), FII (G20210A), and Protein S deficiency. The acquired factors that were evaluated included Antiphospholipid antibodies syndrome (APS), detected as lupus anticoagulant (LA), anticardiolipin antibodies (ACA) and anti- β_2 glycoprotein I antibodies (AGPA). The aim of this project was to investigate the association between thrombophilia and RPL.

In this study group, mutation of the FVL was 32%, 10% ($p=0.007$, OR= 4.235) for cases and controls respectively. The rate of FII 20210 was 6%, 4% ($p=0.500$, OR= 1.532) for cases and controls respectively. Deficiency of total and free Protein S was detected in 38% and 34% of cases as compared to 20% and 16% controls respectively ($P=0.047$, $P=0.038$). The anticardiolipin antibodies were not detected in both cases and controls. However, the anti β_2 -glycoprotein I antibodies for IgM only were positive at a rate of 10% of the cases and 6% of controls with no statistical significance.

In conclusion, it is apparent that FVL and PS deficiency are associated with RPL while the other factors tested cannot be associated with RPL. This may be due to the sample number; more comprehensive study may clarify the association between RPL and thrombophilia.