

## Comparison the Anti- $\beta$ 2GP1 Autoantibody Level in Serum of Pregnant Women with History of Recurrent Miscarriage And Healthy Women in Gorgan

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### **Abstract**

**Background and objectives:** Recurrent miscarriage (RM) is one of the most common reproductive disorders, generally considered to be the loss of three or more pregnancies before viability. One of the causes of this disorder is the immunological factors such as autoantibodies associated with antiphospholipid syndrome.

**Material and Methods:** this case-control study was conducted on 80 pregnant women divided into two equal groups of healthy and RM women in Gorgan. The subjects were asked to fill out a questionnaire and examined by a gynecologist to distinguish their condition, healthy or RM. The blood samples were kept at -20c and assessed by both ELISA 96 and automated ELISA processor with single dose ready-to-use test to measure  $\beta$ 2GP1 autoantibodies of IgM and IgG.

**Results:** the results indicate that % 7.5 of RM patients are seropositive for Anti- $\beta$ 2GP1 IgG, and % 5 for Anti- $\beta$ 2GP1 IgM, but in healthy pregnant, % 7.5 are seropositive for Anti- $\beta$ 2GP IgG, and %7.5 for Anti- $\beta$ 2GP1 IgM. Family history of abortion in RM group (33.5%) is significantly higher than healthy one (17.5%).

**Conclusion:** based on the results, the difference between the level of Anti- $\beta$ 2GP1 IgM and Anti- $\beta$ 2GP IgG in case and control groups is not significant, but the production of this autoantibody is associated with pregnancy.

**Key words:** Autoantibody, Antiphospholipid syndrome, Recurrent Miscarriage