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PREGNANCY MANAGEMENT AND OUTCOME OF WOMEN WITH ANTIPHOSPHOLIPID SYNDROME: A DESCRIPTIVE CASE STUDY

Gynaecology

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ABSTRACT

Spontaneous pregnancy loss is common, with approximately 15% of all clinically recognized pregnancies resulting in pregnancy failure. Recurrent pregnancy loss (RPL) affects approximately 1% to 2% of women. RPL has multiple etiologies, antiphospholipid antibody syndrome (APS) being one of them. APS presents with an increased risk of thrombosis in pregnant woman leading to recurrent fetal losses. We present here the management and outcome of a 26years old pregnant woman who has come to the antenatal clinic with the history of 3 missed abortions and APS positive.

KEYWORDS

Recurrent pregnancy loss(RPL), Antiphospholipid antibody syndrome(APS), missed abortions

INTRODUCTION

Case report

A 26years old pregnant woman G4A3 came to the antenatal clinic with the history of 3 missed abortions all around 7 to 8 weeks of pregnancy. The patient came at 14 weeks of gestation. After last abortion, the couple underwent various tests for recurrent pregnancy loss. On reviewing her investigation report it was found that the ultrasonography report was normal, thyroid profile, GTT, karyotype was normal. However there was increased lupus anticoagulant antibody level(318GPL/ml) and anticardiolipin antibody(49GPL/ml). She was not on any treatment for the same before she came to us. A detailed history taken, no history of any thrombotic event in the past was detected. On clinical examination of the patient no abnormality was detected.

A diagnosis of primary antiphospholipid syndrome was made based on clinical presentation and laboratory findings. Patient was advised certain antenatal investigations. Her blood group was O positive, CBC was normal, routine urine examination was normal. Her anomaly scan and colour doppler was normal. She was started on low dose aspirin (75 mg) and low molecular weight heparin (40 mg) subcutaneously once daily along with routine iron and calcium supplementations. Regular antenatal checkups were done. Patient was compliant with medications. Ultrasound monitoring for fetal well-being was done at regular intervals and was found to be normal.

Aspirin was stopped at 36 weeks of gestation. At 36 weeks 5 days patient came with the complaint of decreased fetal movement. Patient was admitted NST was done which was reactive. CBC, PT/INR were sent and reports were normal. Two doses of steroid were given as patient was planned for induction of labour at 37 weeks. In view of epidural analgesia low molecular weight heparin was stopped 12 hours prior to induction. She was induced with one dose of dinoprostone gel on a Bishop's score <4. Labour was augmented by syntocinon. The duration of labour was 24 hours.

She had normal vaginal delivery of a female baby. There was no prolongation of second stage of labour. The baby had a APGAR score of 8(1st minute) and 9(5th minute). The intrapartum and postpartum period was uneventful.there was no thrombotic event in postpartum period. The patient and baby was dischared in satisfactory state. We discuss this case focusing on the importance of detection and treatment of antiphospholipid syndrome in recurrent pregnancy loss.

DISCUSSION

The term antiphospholipid antibody syndrome(APS) indicates the association between antiphospholipid antibodies and a syndrome of hypercoagulability.[1] The syndrome was described by Graham RV Hughes as a clinical syndrome that is characterized by recurrent spontaneous abortion, thrombosis and neurological disease and lupus anticoagulant was identified as circulating anticardiolipin antibodies.[2] About 10-15% of women with recurrent miscarriage are diagnosed with antiphospholipid syndrome.[3]It is one of the treatable cause of RPL. Diagnosis of APS is based on Sapporo criteria which includes clinical criteria of thromboembolism or pregnancy morbidity and laboratory findings of raised titres of antiphospholipid antibodies that are present on two or more occasions at least 12 weeks apart.[4]

Pregnancy in APLA syndrome presents with increased risk for fetal loss. Multiple infarctions of the placenta due to micro thrombi is seen, if placental infarction is extensive it may cause severe growth retardation of the fetus leading to repeated pregnancy losses.[5] Mechanism of antiphospholipid induced pregnancy morbidity include inhibition of trophoblastic function and differentiation, activation of complement system at maternal–fetal interface resulting in inflammatory response, later in pregnancy thrombosis of uteroplacental vasculature. Mechanisms for APA-induced thrombosis include decreased prostacyclin production by endothelial cells, increased thromboxane production by platelets, and decreased protein-C activation. A 2005 Cochrane systematic review concluded that women with antiphospholipid syndrome should be given a combination of heparin and low-dose aspirin daily.[6].Low dose aspirin and heparin have been proposed as treatment for APS with mechanisms that affect the coagulation system to counteract the effects of APA.[7] Heparin has been shown to inhibit the binding of APA in a dose–response manner. Low dose aspirin may improve placental blood flow by decreasing the thromboxane to prostacyclin ratio, thus enhancing implantation. The antithromboxane effects of aspirin on inhibition of platelet aggregation are thought to work in concert with heparin to promote and enhance implantation. Heparin does not cross the placenta and hence there is no potential to cause fetal haemorrhage or teratogenicity. Low-molecular-weight heparin is as safe as unfractionated heparin and has potential advantages during pregnancy, since it causes less heparin-induced thrombocytopenia, can be administered once daily and is associated with a lower risk of heparin-induced osteoporosis.[8]There are no adverse fetal outcomes reported in the meta-analysis of randomised controlled trials of low-dose aspirin.

CONCLUSION

Pregnancies with APS remain at high risk of complications during all three trimesters, including repeated miscarriage, pre-eclampsia, fetal growth restriction and preterm birth. This necessitates careful antenatal surveillance. Combined therapy using heparin and low dose aspirin has been shown to significantly produce positive results in improving live birth rates and preventing maternal complications.

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