Thrombophilia and Recurrent Fetal Loss

Leonard A. Valentino, M.D.
Rush Hemophilia & Thrombophilia Center

Pregnancy is an acquired hypercoagluable state due to increases in the concentrations of blood pro-coagulant factors, decreases in natural anticoagulants especially free protein S, and impaired fibrinolysis. Recurrent fetal loss (RFL) affects 1-3% of women of reproductive age. **An underlying hypercoagulable state has been identified in more than one-third of women with RFL**. Acquired hypercoagulable conditions including the presence of a Lupus anticoagulant with or without antiphospholipid antibodies are commonly identified in women with RFL. In the last decade, hereditary thrombophilia has also emerged as an important cause for RFL. Hereditary thrombophilias include the presence of the factor V Leiden and prothrombin gene mutations.

The gestational outcome in subsequent pregnancies for women with thrombophilia and a history of RFL is poor with a live birth rate of only 20-50%. Identification of women with an underlying hereditary thrombophilia and/or acquired hypercoagulable conditions is important in order to appropriately counsel the women as to the risks of a subsequent fetal loss and provide guidance regarding options for prophylaxis to prevent fetal demise. In addition, this information is important in order to provide appropriate genetic counseling with regard to the unborn fetus and to the siblings of the pregnant women.

Preventative strategies to reduce the risk of subsequent fetal loss include the prescription of anti-thrombotic agents such as aspirin, heparin and low molecular weight heparins (LMWH). The benefits of LMWH were clearly shown in women with a hereditary thrombophilia and a single prior fetal loss after 10 weeks gestation. Women who received LMWH in combination with folic acid (5 mg daily) and aspirin (100 mg daily) had a 15-fold increase in live birth rate compared to women receiving folic acid and aspirin but not LMWH. The role of these medications in women with a history of fetal loss but no thrombophilia is not known. The prescription of anti-thrombotic agents should be undertaken only after careful consideration of the risks, alternatives and potential benefits of the drugs. A singular strategy applicable to all women with a similar obstetrical history is not of proven benefit and the approach must be individualized considering the risk of bleeding with anti-thrombotic drugs and the likely benefits to that women and the unborn fetus.

If you have questions, please contact Dr Valentino, a member of his staff or your Obstetrician or Maternal Fetal Medicine specialist.