Destin, Fla. — Pregnant women with antiphospholipid syndrome need anticoagulation throughout pregnancy and for at least 6 weeks post partum, Dr. Ann Parke said at the annual Rheumatology on the Beach.

Low-dose aspirin can also be added to anticoagulant therapy. The antimalarial drug hydroxychloroquine should be continued in those with systemic lupus erythematosus (SLE), known to be an anticoagulant pathway, in particular in antiphospholipid syndrome, and toxemia, she said, noting that SLE flares, as well as pregnancy, are among the known “second hit” phenomena that contribute to placental injury. (See related story.)

Furthermore, data suggest that this drug—which reverses platelet activation induced by human IgG anticardiolipin, and which has been shown to reduce thrombosis size in antiphospholipid animal models—is safe in pregnancy, she added.

Other treatments used in pregnant patients with antiphospholipid syndrome (APS) include corticosteroids and intravenous immunoglobulin. IVIG is expensive, and there is no clear evidence of benefit, but warfarin doses are as effective as and safer than heparin. (APS) include corticosteroids and intravenous immunoglobulin, for example. Titer, persistence, and isotype of the antibodies; the number of positive antibodies; and the presence of additional risk factors, such as SLE, also play into the decision to prescribe warfarin. A number of studies have shown moderate warfarin doses are as effective as and safer than high doses in such patients. It remains unclear whether it is necessary to use warfarin in patients with antibodies who have a clinical thrombotic event triggered by second hit phenomenon, she said.

Other issues not adequately addressed include therapy for patients with antibodies but no clinical event, optimal therapy for noncerebral artery thrombosis, managing patients who have recurrence despite adequate international normalized ratio, and therapy in women with antibodies and recurrent fetal losses.

Studies Probe APLA, Complement Links

Animal studies show preventing complement activation is essential in pregnancy, and deficiencies of certain complement components in the presence of antiphospholipid antibodies (APLA) prevent fetal death. Inhibitors of these components are protective in antibody-exposed mice. A study of human placentas suggests complement activation plays a role in APLA-associated placental injury. Dr. Parke said.

Using immunohistochemical methods to identify deposition of complement activation products in the placenta of 47 full-term viable pregnancies in women with APLA and 23 control placentas, investigators showed those with antibodies had more deposition of complement components C4d, C1q, and C9b-9 in the villous trophoblast cytoplasm and the extravillous trophoblast of the basal plate, and deposition of C4d in the trophoblastic cell membrane and basement membrane.

In light of prior data showing trophoblastic cell membrane targets for APLA, and the finding that placental lesions in women with these antibodies are tied to malperfusion, it seems “proinflammatory factors that stimulate complement activation may precede the changes that ultimately lead to ischemia, tissue injury, and fetal loss,” they wrote.

The deposition of complement activation products in patients with antibodies occurs because the protection provided by complement regulatory proteins is overwhelmed by antibodies. This deposition is likely due to increased activation of the complement system, rather than a deletion or inactivation of the complement regulatory proteins.