

ANTI PHOSPHOLIPID ANTIBODIES

Antiphospholipid Syndrome most commonly comes to attention in a diagnostic work-up for patients with recurrent pregnancy loss. Repetitive Pregnancy Loss is defined as combination of pregnancy losses, often involving three consecutive first trimester losses or a single second trimester loss. Just 2 percent of pregnant women experience two consecutive pregnancy losses and only 0.4 to 1 percent have three consecutive pregnancy losses¹. In a patient's first pregnancy, the risk of miscarriage is 11 to 13 percent². After one miscarriage, the likelihood of subsequent loss increases to 14 to 21 percent. After two or three miscarriages, the rate is 24 to 29 percent and 31 to 33 percent, respectively. The same relationship holds true for pregnancy losses later in pregnancy³. Anti-Phospholipid Antibody Syndrome is the best understood mechanism for recurrent pregnancy loss⁴.

Antiphospholipid Syndrome has additional implications in and outside of pregnancy which will be detailed here.

Obstetric Complications

--miscarriage and recurrent miscarriage

Antiphospholipid Antibody Syndrome accounts for a disproportionate share of fetal losses (≥ 10 weeks gestational age) than occur in the general obstetric population⁵. Studies continue to show an increased representation of Antiphospholipid Antibody Syndrome in women affected by recurrent pregnancy loss⁶⁻¹⁴. Range of Antiphospholipid Antibody Syndrome in women with habitual miscarriage is 5 to 20%.

--toxemia

Yamada, et al, demonstrated that women with Antiphospholipid Syndrome have a five times increased likelihood of pregnancy-induced hypertension and an 8 times greater risk of severe pregnancy-induced hypertension¹⁵. Oppositely, 11 to 17% of women with preeclampsia will have positive test for Antiphospholipid Antibodies¹⁶⁻¹⁹. The relationship is strongest in women with severe preterm preeclampsia.

--intra-uterine growth restriction

Of women with Antiphospholipid Syndrome, 15 – 30% of pregnancies are affected with Intrauterine Growth Restriction^{8, 20-22}.

Medical Complications**--venous & arterial thrombosis**

Thrombosis is the most common complication associated with Antiphospholipid Syndrome²³⁻²⁵. Approximately two-thirds of thromboses are venous with the remainder being arterial²⁶⁻²⁷. Although most thromboses are in deep veins of the lower extremities, occurrence in atypical locations should prompt evaluation for presence of Antiphospholipid Antibodies. Chance of recurrence in untreated, Antiphospholipid Antibody positive women is about 25% per year²⁶.

Arterial thrombosis causing stroke and transient ischemic attacks are associated with Antiphospholipid Antibody Syndrome. Coronary artery thrombosis can also be related to Antiphospholipid Antibodies.

The risk of thrombosis increases with pregnancy²⁸. Prospective series have shown 5 – 12% likelihood of thrombosis during pregnancy in women with Antiphospholipid Antibody Syndrome²⁰⁻²¹.

--autoimmune thrombocytopenia

Autoimmune Thrombocytopenia occurs in 40 – 50% of women with Antiphospholipid Antibody Syndrome²⁹⁻³¹. This manifestation is similar in presentation to Idiopathic Thrombocytopenic Purpura (ITP) and is treated in a similar manner. In adults, a standard practice for many decades has been to initiate treatment with oral prednisone, 1 mg/kg given as a single daily dose. Most adults with ITP respond to prednisone treatment within two weeks, with the majority responding within the first week. The role of high-dose dexamethasone for initial treatment of ITP in adults is being actively investigated in a dose of 40 mg per day (either orally or intravenously) for 4 to 8 consecutive days, given for 1 to 6 cycles of 14 to 28 days in length.

--other

Antiphospholipid Antibody Syndrome has also been associated with various conditions including TTP-HUS, transverse myelitis and catastrophic Antiphospholipid Antibody Syndrome which can lead to progressive thromboses and multi-organ system failure.

Few women with Antiphospholipid Antibody Syndrome develop significant disease post partum involving cardiopulmonary failure, renal insufficiency and multiple thromboses³²⁻³⁴.

Selection for Testing

According to the American College of Obstetrician Gynecologists and the International Consensus Statement, women with the following presentations should undergo testing for Antiphospholipid Antibodies³⁵⁻³⁶.

- One or more unexplained deaths at or beyond 10 weeks gestational age, with normal fetal morphology documented by ultrasound or direct examination,
- One or more premature births of a morphologically normal neonate at or before 33 weeks gestational age because of eclampsia or severe preeclampsia, or fetuse consistent with placental insufficiency,
- Three or more consecutive, unexplained losses before 10 weeks gestational age (excluding cases of uterine anomaly, maternal hormonal abnormality and paternal and maternal chromosomal defects)

Treatment in Pregnancy

Treatment recommendations for women with Antiphospholipid Antibody Syndrome are divided based on whether the gravida has had a prior thrombotic event. Pregnant women with a prior thrombotic event are treated with prophylactic heparin anticoagulation and daily baby aspirin through pregnancy and at least six weeks post delivery³⁷. Postpartum the patient is switched to Coumadin for ease of administration. Women without a prior thrombotic event can either be observed or treated with prophylactic heparin during pregnancy and delivery and converted to Coumadin until six weeks post partum.

Women with Antiphospholipid Antibody Syndrome with repetitive miscarriages may be treated with prophylactic heparin and baby aspirin. A meta-analysis from Empson, et al, showed that this strategy may prevent pregnancy loss³⁸.

Prednisone has been used to treat Antiphospholipid Antibody Syndrome women with recurrent pregnancy loss. A meta-analysis has not demonstrated that this treatment is successful³⁸.

IntraVenous Immune Globulin (IVIG) is a new potential therapy for recurrent pregnancy loss in women with Antiphospholipid Antibody Syndrome. A recent, randomized trial did not show greater benefit from IVIG compared to traditional therapy with heparin and baby aspirin³⁹.

Treatment after Pregnancy

Antiphospholipid Antibody Syndrome is a significant threat to sufferers. Long term studies have shown 50% of women developed thrombotic events over a 3 – 10 year follow-up. Ten percent will go on to develop Lupus Erythematosus^{28 40-41}. [22 62 63] Post partum DWC refers women with Antiphospholipid Antibody Syndrome to Internists, Hematologists or Rheumatologists to assure appropriate ongoing care is available.

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DESERT WOMEN'S CARE APL AB'S ORDER SHEET

ORDER

ACTION

Office Based:

Antiphospholipid Antibodies
--Lupus Anticoagulant
--Anti-Cardiolipin Antibodies
--Anti B2 Glycoprotein 1 Antibodies

Imaging Studies:

Ultrasound

Medications:

Start prophylactic Heparin
Start therapeutic Heparin
Start prophylactic Lovenox
Start therapeutic Lovenox
