**PHOSPHOLIPID**

**FUNCTION:**

Phospholipids are a class of lipids that are a major component of all cell membranes. They play a role in the formation of lipid bilayers. Most phospholipids contain a diglyceride, a phosphate group, and a simple organic molecule such as choline.

**ANTIBODIES APPEAR:**

- Antiphospholipid Syndrome
- NIDDM
- Systemic Lupus Erythematosus

**KNOWN CROSS-REACTIONS:**

- Anti-ribosomal P protein antibodies
- DNA
- Cardiolipin

**CLINICAL SIGNIFICANCE:**

Antibodies against phospholipids may have an important role in mediating platelet destruction in autoimmune disorders. Anti-phospholipid antibodies (anti-PL) have been shown to bind to the membrane of activated platelets; thus it has been postulated that this may result in increased destruction of platelets by the reticuloendothelial system. Anti-PL have been demonstrated in patients with autoimmune thrombocytopenia (AITP) and Systemic lupus erythematosus (SLE). Anti-PL are directed against a diverse group of phospholipids and phospholipid-binding proteins; among these, anti-cardiolipin (anti-CL), anti-beta-2-glycoprotein I (β2-GP-I) and anti-prothrombin antibodies seem to be the most relevant from the clinical viewpoint. Anti-PL have been found in moderate and severe noninsulin-dependent diabetes mellitus patients, and thus may suggest that autoimmune nerve destruction may be involved in diabetic neuropathy in NIDDM patients. Anti-phospholipid antibody syndrome may appear as a stand-alone syndrome or associated with major connective tissue disease such as SLE and may manifest in a number of neurological conditions. Widespread thrombosis and infarction of placentas obtained from women with antiphospholipid syndrome (APS) was actually reported both in first and second trimester abortions. There is evidence from in vitro studies that anti-PL may induce pro-coagulant state at the placental level, thus playing a pathogenic role of thrombotic events in anti-PL-associated pregnancy. It can be concluded that impaired endothelial fibrinolysis is a potential prothrombotic mechanism in subjects with antiphospholipid antibodies.

**References:**