

Antiphospholipid syndrome (APS)

Antiphospholipid syndrome (APS) is a disease that occurs when the body produces antiphospholipid antibodies. Phospholipids are a type of fat that contains phosphorus. They are an important component of the human body's cell membranes. Although the cause of this disease is still unknown, some experts believe that it could be caused by an unknown virus. Other causes that have been researched include autoimmune diseases, such as lupus, and adverse effects of medications. Patients with APS are at greater risk of having blood clots. The mechanism whereby this occurs is still not fully understood. These blood clots can affect any organ system in the body. If a blood clot occurs in the brain, it can cause a stroke. If it occurs in one of the blood vessels that carry blood to the heart (coronary arteries), it can cause a heart attack. If it occurs in the lungs, it is called pulmonary embolism. All these types of blood clots are potentially serious. Antiphospholipid syndrome can also cause recurrent miscarriages and decrease in the number of platelets.

Diagnosis

APS is diagnosed when a patient has clinical signs of blood clots or other symptoms that bear a known relation to APS and laboratory tests (blood tests) confirm the presence of antiphospholipid antibodies in the blood.

APS can occur on its own (primary) or may be caused by an underlying condition (secondary). The most common secondary causes are autoimmune diseases, such as lupus or rheumatoid arthritis. Some patients with primary APS have abnormalities in the heart valves. Such abnormalities can include enlargement of the affected valve or the formation of vegetations (masses). An enlarged valve can cause the blood to leak backwards through the valve. This is called regurgitation. This increases the heart's workload and could cause heart failure. Vegetations can cause the formation of small blood clots, which detach and travel through the circulatory system and cause strokes or damage other organs.

Treatment

The treatment for APS focuses on the prevention and treatment of blood clots. Eliminating other risk factors for blood clots, such as smoking and taking oral contraceptives, is the first step. Low doses of aspirin may be used in patients without a history of recurrent blood clots. However, its effectiveness in the prevention of blood clots in patients with APS has not been corroborated. In the case of people with a history of blood clots, blood thinners, such as warfarin or heparin, need to be used to prevent the formation of clots.

The cause of APS remains unknown. It is necessary to create tests to identify people in whom the detection of antiphospholipid antibodies is required. Controlled clinical studies focusing on how to prevent or treat APS also need to be undertaken.