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Commentary

Brief Note on Lupus Anticoagulant

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DESCRIPTION

Lupus Anticoagulant (LA) is an antiphospholipid antibody detected in many lupus patients. LA improves the blood to clot at faster rate which leads to formation of blood clots. As a result, if a person carries this antibody, they are more likely to develop a blood clot. Lupus anticoagulant does not need the presence of lupus. Lupus Anticoagulant (LA) is an antiphospholipid antibody, along with Anticardiolipin (ACL) and Anti-Beta2-Glycoprotein (GP) antibodies. LA is heterogeneous autoantibodies, mainly of the IgG and IgM isotypes, that selectively target the phospholipid-protein component of the cell membrane. Antiphospholipid antibodies are present in around 30% of lupus patients. Antiphospholipid antibodies disrupt the normal function of blood vessels, which can result in vessel constriction or blood clots. These complications may result in a stroke, heart attack, or a miscarriage.

The antiphospholipid antibody was found in individuals with systemic lupus erythematosus in the 1940s. Today, doctors realize that LA is developed in patients who have other autoimmune disorders such as inflammatory bowel disease, certain malignancies and infections, persons who take certain drugs, such as, phenytoin, phenothiazines, quinine, hydralazine, or the antibiotic amoxicillin. The term lupus anticoagulant is misleading since it implies that the antibody causes bleeding. In reality, LA aids in blood clotting. In fact, after twenty years, almost half of the lupus patients with LA will have a blood clot, making the existence of this antibody risky.

SYMPTOMS OF LUPUS ANTICOAGULANTS

Presence of lupus anticoagulants in blood can increase the risk of blood clots. Sometimes antibodies, on the other hand, might be present without causing a clot. Symptoms of a blood clot in arms or legs are as follows: discoloration or redness in arm or leg, pain or numbness in arm or leg, swelling in arm or leg, breathing difficulties. A blood clot in the area of the lungs or heart may cause: Excessive sweating, chest pain, fatigue, dizziness, or both, breathing difficulties.

Blood clots in the stomach or kidneys causes: Thigh pain, stomach pain, diarrhea or blood in stool, fever, nausea. If blood clots are not treated properly, they can be fatal. Lupus anticoagulants can create small blood clots, which might cause complications in pregnancy and lead to miscarriage. Multiple miscarriages, especially if they occur beyond the first trimester, maybe a symptom of LAs.

TESTING FOR LUPUS ANTICOAGULANT

LA is detected through coagulation testing, which evaluates how long it takes blood to clot. The Activated Partial Thromboplastin Time (APTT) is a coagulation test that is commonly used by healthcare practitioners while treating lupus patients. If the APTT findings are normal, healthcare practitioners will perform a more sensitive test to be certain. Typically, this is the modified Russell Viper Venom Time (RVVT), which detects LA using phospholipid and venom from a Russell viper snake. Platelet Neutralization Procedure (PNP) and kaolin clotting time are two more sensitive coagulation assays that may be employed. The Partial Thromboplastin Time (PTT) test determines how long blood takes to clot. It can also tell whether a patient has anticoagulant antibodies in their blood. If test results show positive for having anticoagulant antibodies, a patient needs to be retested. Retesting is usually done in around 12 weeks.

If a PTT test reveals the presence of anticoagulant antibodies, the doctor may prescribe additional blood tests to rule out other medical issues. These types of testing may include: coagulation factor assays, kaolin clotting time, anticardiolipin antibody test, Dilute Russell Viper Venom Test (DRVVT), beta-2 glycoprotein-1 antibody test, LA-sensitive PTT. All of these blood tests provide minimal risk. When the needle pierces the skin, it may feel a momentary sting. There is a tiny risk of infection or bleeding.

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TREATMENT FOR LUPUS ANTICOAGULANT

Blood thinning medications are frequently prescribed to those who test positive for LA to avoid clots. Steroids may be prescribed to help reduce antibody levels. Complications from LA are treatable with the correct treatment. These drugs aid in the prevention of blood clots by decreasing the liver's synthesis of vitamin K, which aids in blood clotting. Warfarin and Heparin are two common blood thinners. Aspirin may also be prescribed by the doctor. Instead of reducing vitamin K synthesis, this medication affects platelet activity. If the doctor prescribes blood thinners, the patient's blood will be tested for the presence of cardiolipin and beta-2 glycoprotein 1 antibodies regularly. If the test results show that the antibodies have been eliminated, the patient can stop taking their medicine. However, this should only be done after consulting with the doctor. Some patients with Lupus anticoagulants only need blood thinners for a few months.

Steroids, such as prednisone and cortisol, can decrease the formation of LA antibodies by your immune system. Plasma exchange is a procedure that separates your blood plasma which includes the LA's from the other blood cells using a machine. The plasma containing the LA's is replaced with plasma or a plasma replacement that is antibody-free. This treatment is also known as plasmapheresis.

CONCLUSION

In most cases, therapy can reduce both blood clotting and the symptoms of LA's. According to 2002 analysis, women who are treated for antiphospholipid syndrome, often with low-dose aspirin and heparin have a 70% probability of delivering a successful pregnancy to term. If patients are worried about blood clots, then talk to the doctor about LA and risk of having blood clots. Most healthcare professionals advices to help reduce the risk of LA.