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SOME BLOOD CLOTTING DISORDERS AND ROLE OF D-DIMER TEST

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Annotation

Blood clotting disorders are problems in the body's ability to control how the blood clots. Normally, blood clots form during an injury to prevent bleeding. If you have a clotting disorder, your blood may not clot enough, which can lead to too much bleeding, or your blood may form clots even without an injury.

Keywords: antiphospholipid syndrome (APS), disseminated intravascular coagulation (DIC), deep vein thrombosis(DVT), pulmonary embolism, D-dimer.

Blood clotting disorders are sometimes called coagulation disorders or thrombophilias. They are either inherited (meaning that you are born with the condition) or acquired (meaning you develop the condition as the result of another illness or injury). For example, antiphospholipid syndrome (APS) and disseminated intravascular coagulation (DIC), deep vein thrombosis(DVT), pulmonary embolism are types of acquired blood clotting disorders. Blood clots can cause many health problems. Symptoms of blood clots depend on where in the body they form. Typically, they will form in the veins and appear in the legs or lungs. Blood clots in the legs can cause deep vein thrombosis. Blood clots in the lungs can cause a pulmonary embolism. It is rare for blood clots to form in the arteries. When they do, they can lead to heart attack or stroke.

A D-dimer test looks for D-dimer in blood. D-dimer is a protein fragment (small piece) that's made when a blood clot dissolves in your body. D-dimer isn't usually found in your blood unless your body is making or breaking up blood clots.



Normally, your body will dissolve the clot once your injury has healed. With a blood clotting disorder, clots can form when you don't have an injury, or they don't dissolve when they should. These disorders can be serious and even life-threatening.

Other names: Fragment D-dimer, Fibrin degradation fragment, DVT - D-dimer, PE - D-dimer, Deep vein thrombosis - D-dimer, Pulmonary embolism - D-dimer, Blood clot to the lungs - D-dimer.

5



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A D-dimer test is used to check if you may have a blood clot. The test helps to find out if you need more tests to check for blood clotting disorders. A D-dimer test may also be used to monitor how well treatments for a blood clotting disorder like disseminated intravascular coagulation (DIC) are working. Blood clotting disorders that the D-dimer test may be used for include:

Deep vein thrombosis (DVT), a blood clot that forms in a vein deep in your body. These clots usually affect the lower legs, but they can also happen in other parts of your body.

Pulmonary embolism (PE), a blockage in a lung artery. It usually happens when a blood clot in another part of your body breaks loose and travels to your lungs. DVT clots are a common cause of PE.

Disseminated intravascular coagulation (DIC), a condition that causes too many blood clots to form. They can form throughout the body, causing organ damage and other serious health issues. DIC may be caused by inflammation, infection, or cancer.

Stroke, which can happen when blood flow to a part of the brain is blocked.

Disseminated intravascular coagulation (DIC) is a serious disorder in which the proteins that control blood clotting become overactive. Symptoms of DIC may include any of the following:

Blood clots

Bruising

Drop in blood pressure

Shortness of breath

Confusion, memory loss or change of behavior

Fever

If your results show low or normal D-dimer levels in the blood, it means you probably don't have a clotting disorder. You may need this test if you have symptoms of a blood clotting disorder, such as deep vein thrombosis (DVT) or a pulmonary embolism (PE).

Symptoms of DVT in your leg include:

Leg pain or tenderness

Leg swelling

Redness or darkening of the skin on the leg Skin that feels warm



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Symptoms of PE include: trouble breathing, cough, chest pain, rapid heartbeat and breathing.

But if you are being treated with blood thinner medicines, they may cause a false negative D-dimer test. This means your test results show that you don't have a



clotting disorder, but you really do. If your results show higher than normal levels of D-dimer, it may be a sign of a clotting disorder. Additional tests will be needed to show where the blood clot is located or what type of clotting disorder you have. High D-dimer levels are not always caused by clotting disorders. A few other possible reasons why you may have high D-dimer levels include pregnancy, heart disease, rheumatoid arthritis, and recent surgery. Being older or immobilized (unable to move) may also cause a high D-dimer level. If your D-dimer results were not normal, your provider will probably order more tests to make a diagnosis. To understand the results of a D-dimer test, your provider will consider your symptoms, medical history, and the results of other tests. If your D-dimer test results were not normal, your provider may order one or more imaging tests to find out if you have a clotting disorder. These include:

Doppler ultrasound, a test that uses sound waves to create images of your veins. This may help to find out if the blood in your veins is flowing as it should.

CT angiography. In this test, you are injected with a special dye that helps your blood vessels show up on a special type of x-ray machine. This may help to find blood clots or check if your blood vessels are damaged.

Ventilation-perfusion (V/Q) scan. These are two tests that look for certain lung problems. These tests may be done separately or together. The ventilation scan measures how air moves in and out of your lungs. The perfusion scan measures how blood flows in the lungs. They both use small amounts of radioactive tracer to help a scanning machine check how well your lungs are working.



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