

# Lupus Update with Dr. Robert Katz

## **A reader wants to know: thrombocytopenia in lupus**

Thrombocytopenia means low platelets. “Thrombocyte” is the medical term for platelet and “penia” means few, so it is translated to 'few platelets.' Platelets have a lot to do with blood clotting. If platelets are significantly deficient, a person is more susceptible to bleeding; either minor bleeding or more serious bleeding if a patient bangs their head, etc.

Antiplatelet drugs such as aspirin, Plavix, and most of the non-steroidal anti-inflammatory drugs can also exert an effect on platelets getting together as a group, called platelet aggregation. They can reduce this platelet aggregation and interfere with clotting to an extent. For that reason they can be useful in preventing serious blood clots causing heart attacks and strokes, but they can also promote bleeding.

In lupus, thrombocytopenia is generally due to antibodies that form against platelets and destroy them. This destruction can occur in the blood or in the spleen, an organ in the left upper part of the abdomen. Sometimes the spleen enlarges in patients with immune thrombocytopenia. So if the antibodies damage the platelets and the bone marrow cannot make new platelets fast enough, the platelet count drops. A bone marrow aspiration is often done. This can be momentarily painful, but it assesses the blood-making cells. Blood cells such as white blood cells, red blood cells, and platelets are made in the marrow of long bones. If there are plenty of precursors to platelets (called megakaryocytes), then the destruction of platelets must be occurring outside the bone marrow and in the blood, spleen, etc. This is immune thrombocytopenia such as in lupus in which sufficient platelets are made, but there is an overactive response at destroying them.

Unless the platelet levels are extremely low, such as less than 10,000, when about 140,000 to 400,000 is considered normal, bleeding usually does not occur unless there is trauma. But even moderately low platelet counts in the range of 80,000 to 100,000 can be related to immune thrombocytopenia, and lupus and is one of the

characteristics of the disease. But it is not present in most lupus patients.

Therapy for thrombocytopenia in lupus is generally directed at the underlying disease with steroids if the thrombocytopenia is severe enough and immunosuppressive drugs to reduce the level of autoimmune antiplatelet antibodies. But one has to be careful with immunosuppressive drugs because you do not want them to suppress platelet production in the bone marrow. Since immunosuppressives can affect rapidly dividing cells such as the megakaryocytes (the precursors to platelets in the bone marrow), the physician needs to be judicious in the use of immune-suppressing drugs for this disorder. Rituximab, a monoclonal antibody to B-lymphocytes, can also be used in some cases of immune thrombocytopenia. Most patients tolerate rituximab well, and it works for a long time. It is not always indicated, but could be used in some cases of lupus thrombocytopenia.

Our reader wants to know why she has terrible leg pain in conjunction with the low platelet count. She commented she is already taking 60 mg of prednisone for one week and that her platelet count went up in response to the steroids, but the leg pain did not respond. Without getting into specifics in a case where I do not know the details, it sounds like the leg pain and immune thrombocytopenia are not directly connected, and there is another explanation for the leg pain, but again, I do not really want to go there in this type of column in terms of trying to make a more specific diagnosis.

When you go to see your physician, you might ask questions about which tests the doctor feels are important in following your lupus, how your lupus was diagnosed and what specific tests need to be followed. If the platelet count is one of them, jot down what your platelet count is and what the normal values are. Then from time to time you can review your lab work with your physician or by yourself to determine how your platelet count is responding. The same with other commonly done tests in lupus, including the white blood cell count, which can also be low, the red blood cell count, various antibodies such as anti-double-stranded DNA antibodies, proteins in the blood called complements and especially C3 and C4 components of complement, the sed rate and C-reactive protein, which tend to increase due to inflammation caused by lupus, the urine protein level, and

sometimes other tests that your doctor indicates are important in your particular case.

If you go to read about certain medical issues regarding lupus, choose reliable websites such as the Lupus Foundation of America and the Illinois chapter, the Mayo Clinic website, WebMD, various university medical websites, etc.

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