

American Perspective

Are people with ITP immunocompromised?

Many of my patients with ITP have asked if they are immunocompromised. This has become an even more frequent question given the different COVID vaccine recommendations for people who are immunocompromised. When the body receives a vaccine, the immune system will react to that vaccine and create a memory of the virus or bacteria so that next time the body sees that infection it is ready to clear it and help the body not get sick. In order to have this response, the body has to have all the right cells to recognize the vaccine, trigger an immune response and create the memory for next time they are exposed to the virus or bacteria. If an individual is immunocompromised one or more of the key steps in creating this memory response may not be completed either because certain cells are not there or because they can't work properly. Similarly, if there is a part of the immune system that is not working correctly a person may have more difficulty fighting infections.

While ITP is an immune condition, having ITP does not mean that a person is immunocompromised. ITP is an autoimmune condition that results from the immune system not acting properly. People with ITP have an immune response against something they should not, in this case their platelets. Unlike people who are immunocompromised, the body can still react properly to other things such as viruses, bacteria, and even vaccines.

There are certain patients with ITP however who may be immunocompromised because of their ITP treatment. Immunosuppressive therapies are drugs that reduce the immune system response. Several treatments for ITP are considered immunosuppressive therapies and therefore can make a person immunocompromised. This is because many of the therapies that we use to treat ITP work by dampening the immune system and making it less reactive. While this is a good thing for the platelets, it may mean that a person will not have a proper response to certain infections or vaccines. When a person is taking immunosuppressive medications, they may be at increased risk of complications from the natural infection but also may not have as robust a response to vaccines. For these reasons, patients receiving immunosuppressive therapies may require certain vaccines prior to starting therapy, need an additional booster of vaccines during treatment, and/or should avoid live vaccines during a period surrounding treatment (usually 6 months).

A common medication that many patients with ITP receive is corticosteroids. Long-term treatment with corticosteroids (≥ 20 mg prednisone or equivalent per day) can make someone immunocompromised and less likely to respond to vaccines or be able to fight infections. Another common ITP medication is rituximab. Rituximab works by reducing immune cells in the body called B cells. These cells are an important first step in creating a memory response to a vaccine. Following rituximab almost complete reduction in the B cells occurs immediately. The B cells will start to recover as early as 3 months, but it may take up to 12 months for them to completely normalize again. During this time patients remain immunocompromised. Patients with ITP who undergo splenectomy are considered immunocompromised against very specific infections. The spleen is an important organ in fighting infections with certain bacteria called encapsulated bacteria. When the spleen is removed a layer of defense against these bacteria is removed. This is why someone who undergoes splenectomy receives specific vaccines for these infections before the procedure. Following splenectomy patients counseled to be seen anytime they have a fever to prevent and treat severe bacterial infections. Children may also be placed on daily antibiotics to prevent infections. Having the spleen removed does not affect a person's ability to fight other bacterial infections or viruses.

While this is not a comprehensive list of the treatments used in ITP and their effect on the immune system it highlights the importance of asking your doctor about the medications that you are taking and if they affect your immune system. Simply having ITP however does not make an individual immunocompromised. Before starting a new medication talk with your doctor about the effects on your immune system and if there are certain vaccines you should get before starting or boosters that are recommended. Sometimes, your doctor may recommend checking titers, which can tell if your body has had a response to a vaccine or checking the different cells in the immune system to see if they are reduced. These can help know if a particular medication is influencing your immune system. Alternatively, it is important to know if there are certain vaccines you should avoid or special precautions to take with regards to infections.

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