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Title: Viruses and childhood ITP

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Most patients are well aware of the fact that doctors like to blame many things on viruses. “It must be a virus,” says the doctor whenever he or she is puzzled by a fever, runny nose, headache, or other transient problem. It is easy to blame viruses. Viruses are everywhere. They are too small to be seen with a microscope. Tests for them are unavailable, very expensive, or take weeks for the results to return. And for most virus infections there is no specific treatment.

But what about viruses in childhood ITP? In fact, there is some scientific evidence that virus infections and the body’s response to them are important in causing acute ITP in children. Many studies have shown that approximately 75% of children who develop ITP have recently had evidence of a viral infection. Most commonly these are upper respiratory infections (runny nose, sore throat, and cough). They are often termed “non-specific” since they are not severe and there is no distinct virus to blame. Usually the ITP comes on suddenly a week or two after the child has recovered from the virus. Alternatively, sometimes a very specific virus can trigger ITP. This occurs especially when accompanying or following chicken pox or infectious mononucleosis (also called “mono”). Another bit of evidence that viruses can bring on ITP is the observation that ITP may rarely occur a few weeks after certain vaccinations or immunizations that consist of a very mild virus strain, especially the measles – mumps - rubella or the varicella (chicken pox) vaccinations.

Exactly how does a virus cause ITP? Well, we really don’t know. The best theory is that the virus stimulates formation of an antibody in the child (which is good since this helps get rid of the viral infection), but temporarily the complex or combination of the virus and antibody circulates in the bloodstream, attaches to the platelets, and then destroys them. After full recovery from the infection, the virus disappears, the antibody diminishes, and the platelet count recovers. Thus most children with acute ITP return their platelet count to normal within a few weeks or a few months and are well thereafter. This situation is actually somewhat distinct from what has been called chronic ITP, which (arbitrarily) is defined as ITP in a child lasting for more than six months. In such cases, prior exposure to a virus is less likely its cause. Instead it is thought that the problem (as in many adults with ITP) is an autoimmune disorder in which the body mistakenly makes an antibody against itself (in this case the platelets). However, even here (in chronic ITP) viruses may play a role. For instance, certain infections, such as HIV, can bring on a chronic ITP-like condition. In addition, autoimmune diseases in laboratory mice and certain other animals may be caused by unusual virus infections.

So in summary, little is truly known about the role of viruses in ITP. The medical profession still remains mostly “in the dark” about this important subject. Viruses may contribute to ITP’s cause, but there must be other factors, since only a very small percentage of children with viral infection actually get ITP. Clearly more research is needed!