Managing IVIG Adverse Effects

By Michelle Greer, RN, and Leslie J. Vaughan, RPh

**INTRAVENTOUS IMMUNE** globulin (IVIG) is a very effective treatment that frequently provides disease improvement for people who have suffered years of misdiagnosis and medications that did not help. For some people such as those with primary immunodeficiency, IG therapy is the only treatment for their condition. But, because IVIG evokes an immune response, side effects can be expected. Fortunately, there are ways to mitigate and even eliminate them. Additionally, there are more serious reactions that are rare, so it’s imperative to understand what these are and how to take steps to decrease their occurrence. It’s also important to ensure nurses who administer IVIG have received education and training on how to safely and effectively infuse IVIG.

**Side Effects of IVIG**

The most common reactions to IVIG are flu-like symptoms, including headache, fatigue, body aches and fever. Headache is the most commonly reported side effect, with pain ranging from mild to severe. For most people, premedication with acetaminophen is routine, and if headache occurs, the dose may be repeated. People who experience frequent headaches or even migraines prior to starting IVIG may be at a higher risk for a more severe headache. In this case, steroids or the person’s current prescribed migraine treatment may also be given as premedication. A severe headache along with other symptoms such as nausea, vomiting and neck pain or stiffness can signal a more serious adverse reaction known as aseptic meningitis. If these symptoms are reported, the physician should be notified, and the person may need to seek emergency medical attention.

Blood pressure fluctuation is another potential side effect. If the person is known to have hypertension, it is especially important to take blood pressure medications exactly as prescribed. And, the nurse administering the IVIG should take a baseline blood pressure prior to starting the infusion. IVIG infusions are started slowly and ramped up at predetermined intervals to a maximum rate. Blood pressure should be monitored throughout the infusion, and is typically taken right before an increase in the rate of infusion. If at any point in the infusion the person does not feel well, blood pressure and other vital signs such as pulse, breathing rate and temperature should be reassessed. If blood pressure is high, the infusion should be paused and restarted when symptoms or blood pressure normalize. Many reactions can be resolved simply by slowing the rate or pausing the infusion and resuming when symptoms subside.

A rash or other dermatological reaction occurs in about 6 percent of persons treated with IVIG. The rash may present as redness, papules (small red bumps) and itching. This reaction does not necessarily indicate an allergic reaction, nor does it mean IVIG should be discontinued. Typically, a premedication of steroids is added.

More severe reactions are rare, but a physician and/or pharmacist or nurse should perform a risk assessment prior to initiating treatment to formulate the best plan to prevent the reactions. Additionally, people receiving IVIG should be educated about the potential for developing side effects so they will be aware of which signs and symptoms they should promptly report to the physician or pharmacist. These reactions can include aseptic meningitis, as mentioned earlier, as well as impaired renal function, thrombotic event and hemolytic anemia. Preventive measures can be instituted for these severe reactions; however, if these side effects occur, consideration may be given to changing the brand of IVIG.

One of the most important ways to reduce side effects is to hydrate. Drinking an adequate amount of water several days prior to the infusion, on the infusion day and a few days after the infusion is key. Unless there is a clinical reason someone should not have increased fluids, the person should drink 64 ounces (8 cups) of water each day. Some physicians may prescribe intravenous fluids to be infused just prior to the IVIG infusion. Prehydration with normal saline is also used to prevent IG-induced adverse effects. Many studies have proposed prehydration can be helpful to reduce the risk of headache, thrombolysis (blood clots), renal impairment (decreased kidney function) and hemolysis (destruction of red blood cells).

If the potential for side effects is great, or if they have already occurred, the subcutaneous (SC) route of administration can be considered. With the exception of injection site reactions, side effects are generally much less frequent with SCIG.

**A Safe Therapy**

All in all, IVIG is very safe, and many people tolerate this treatment with minimal or no side effects.

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**Reference**

Snuggle Up
The Lavender Spa Blanket helps soothe everything from aches to anxiety. Add in some lavender and a dash of the calming shade of violet, and it’s the perfect side-effect-combatting comfort. Pop it in the microwave or freezer for hot or cold therapy. The removable insert is filled with flax seed and lavender blossoms, and the cover is washable. $68; www.uncommongoods.com/product/lavender-spa-blankie

Drink Up
The best way to stay hydrated: Drink a lot of water. Need help? Get a cute and functional water bottle. The HydroFlask bottle, embazoned with that cute little spikey-haired guy, will keep water cold (or hot) for hours. It’s equipped with a strong seal that won’t leak and is available in a rainbow of bright colors. $79.99-$89.98; amazon.com

Rash Relief
Applying a topical steroid cream to the skin after IVIG treatment can help patients deal with rashes by relieving redness, itching and swelling. Topical hydrocortisone valerate cream targets the inflammation of the skin caused by allergic reactions, eczema or other issues. Available by prescription only

Headache Remedy
Tylenol, the brand name for the drug acetaminophen, can help alleviate headaches that often accompany IVIG treatments. Although Tylenol isn’t an anti-inflammatory like ibuprofen, it’s an effective option to lessen headaches for patients who may have issues with aspirin due to acid reflux, ulcers, etc. Available at drug stores and supermarkets

Gentle Reminder
Ramping up the fluids in the days leading up to an infusion is crucial. Something as simple as the Ultra Smart Hydration Reminder can serve as that necessary reminder. The smart tracker, which straps onto water bottles of all shapes and sizes, reminds the user to take a sip at least once per hour with a gentle blink. $25; amazon.com

Shopping Guide to Relieving IVIG Side Effects