

What is the best medication for Acromegaly?

Dr. Friedman just returned from being a medical advisor to Pfizer regarding Somavert, a drug used to treat Acromegaly. Acromegaly, which is when the pituitary makes too much growth hormone (GH), is almost always due to a pituitary tumor and is thought to be as common as Cushing's disease. If not properly treated, Acromegaly can be as devastating as Cushing's disease. If Acromegaly occurs in childhood, it is called Gigantism (tall stature). However, if Acromegaly occurs in someone who is no longer growing, the signs and symptoms include joint pain, sweating, headache, increased ring and hat size (for those who wear hats), widely spaced teeth and wide nose and forehead. The primary treatment for Acromegaly is surgery and hopefully with increased awareness of the disease, Acromegaly can be diagnosed when the tumor can be completely resected surgically and the patient can be cured. However, in many patients, there is a delay before the diagnosis is made, the tumor is a macroadenoma and can not be completely resected and the patient continues to have Acromegaly after surgery. This is where medications play a role.

The main medications used to treat Acromegaly is based on the hormone made in the hypothalamus called somatostatin, which when it binds to somatostatin receptors in the pituitary, decreases GH secretion from the pituitary. The original drug was called Octreotide and had to be given by a subcutaneous shot 3X a day. Since then, the Octreotide formulation has been modified so now it is given by a shot monthly. The common names of the monthly shot are Octreotide long-acting release (LAR), Lanreotide depot and a newly approved drug called Pasireotide LAR. As GH binds to the liver to release IGF-1, the goal of treatment with these drugs is normalization of IGF-1 levels (in reality the IGF-1 should be mid-normal, not just in the normal range). Originally it was thought that these somatostatin-like drugs were effective in about 70% of patients, but recent studies, when looking at normalization of IGF-1 levels, found that they only worked in 25% of patients with Acromegaly. Although initially it was thought that these drugs shrink the size of the residual pituitary tumor, these effects appear modest. These drugs give a high rate of gallstones or gallbladder sludge, right-upper quadrant pain that often can not be seen on imaging studies. They also increase the rate of high blood sugar and diabetes. The rate of high blood sugar is about 25% in the old drugs and up to 60% with Pasireotide LAR. Certainly these medications leave a lot to be desired.

Fortunately, there is another drug available to treat Acromegaly. Somavert, also called Pegvisomant, works by a completely different mechanism and its discovery by Dr. John Kopchick was brilliant. He found out what amino acid in GH was needed to bind to and activate the GH receptor and modified that amino acid so it binds to the GH receptor and blocks the body's GH from binding to the GH receptor. Somavert is very effective at rapidly (within days) lowering IGF-1 levels and although GH levels go up, there are no detrimental effects of the excess GH as it can not bind to the GH receptor. Somavert normalizes IGF-1 levels in about 80% of the patients (remember the somatostatin-like drugs only work in 25% of the patients) and is very effective at improving the symptoms of Acromegaly. Unlike the somatostatin-like drugs, Somavert actually improves diabetes and can lower blood sugar levels.

Somavert is also very safe drug with the main side effect being a rare increase in liver function tests that return to normal when the drug is stopped. It used to be thought that Somavert leads to pituitary tumor growth, but recent studies show that the tumor growth rate is similar to that of patients on no drugs. It is rare for the tumor growth to be clinically important. Somavert does need be given by a shot (using an insulin syringe with a small needle) daily. Somavert has a co-pay program where the drug only costs patients \$5/month.

If you have Acromegaly, it's your choice, a drug that works 25% of the time and has tons of side effects or a drug that works 80% of the time and has almost no side effects. If your doctor refuses to give you Somavert, show him/her this article or better yet come out and see Dr. Friedman.

For more information about Dr. Friedman's practice or to schedule an appointment, go to www.goodhormonehealth.com or email us at mail@goodhormonehealth.com.