

## Pyridostigmine (Mestinon)

Pyridostigmine (Mestinon), as well as its slightly longer acting relative prostigmin (neostigmine), as well as short-acting cousin medication (Enlon) edrophonium, have been used to both diagnosis and treat myasthenia gravis for many decades. Since the blood antibody that disrupts the communication of nerve cell information traveling to muscle relies on a chemical antibody, flooding the area around the nerve and muscle with any of the above-mentioned medications can help promote nerve and muscle communication so that the brain can tell the body which muscles to move and also regulate the muscle's strength to good effect.

(Enlon) edrophonium, since it is so short acting, has been used to diagnose myasthenia gravis for many years. A patient with double vision, lid drooping, head lagging, or difficulty speaking is injected with the medication and within a minute or so, these symptoms disappear. Unfortunately, the effects of this medication last only five to ten minutes and so it is more of a diagnostic than therapeutic medication.

Mestinon, on the other hand, can be used three to four times a day and can promote strength in patients with myasthenia gravis. It, together with prednisone, are the most common medications used to manage patients with myasthenia gravis. Mestinon can be given intramuscularly or intravenously as injections, or orally as a liquid or a pill. It is generally first line treatment for someone recently diagnosed with myasthenia gravis.

Since skeletal muscle utilizes nicotinic receptors, and other types of muscle muscarinic receptors, there are occasional side effects from overstimulation of smooth muscle such as those in the gastrointestinal tract, those regulating pupil size, and also heart rate. When too much Mestinon is given the heart rate can slow, wheezing can occur, excessive sweating, and a feeling of the need to evacuate the bowels or bladder. This can be managed by your neurologist or general doctor and generally are not severe side effects.

The only problem with the medication comes when the symptoms of myasthenia gravis worsen and too much of the medication is taken in order to prevent myasthenic symptoms from getting worse. This can occasionally result in what is referred to a "cholinergic crisis" with the above-mentioned side effects, which also include excessive muscle weakness. Generally, patients tolerate ½ of a 60 mg. pill up to four times a day very well and many patients also tolerate two pills up to every three to four hours. This varies from person-to-person. Your physician will work with you to minimize these side effects. Mestinon's side effects are easily reversible, and dissipate after at most two to three hours, unlike those of prednisone which can persist for some time.

Mestinon does not cause weight gain, bone problems, glaucoma, cataracts, hypertension, or other side effects that are common to those who use steroids.

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