

3.2.2.3.2.16 How apomorphine works

Strictly speaking, Uprima is not a new drug. The active ingredient of Uprima is apomorphine, which has been around for decades, and is used in the treatment of Parkinson's disease and as an emetic in dogs and other domestic animals. (An emetic is a drug that induces vomiting.)

While apomorphine has a definite potential as a pleasure drug, this is about all it has in common with its more famous colleague in name, morphine. Sure, apomorphine is produced from morphine. But its pharmacological effects are completely different. Morphine is a sedative agent, while apomorphine is a stimulant.

Apomorphine primarily works as a dopamine agonist, which accounts for its usefulness in the management of Parkinson's Disease, a condition characterized by the loss of dopamine-producing neurons, leading to severe motor function disturbance. Apomorphine is a D1 receptor-specific dopamine agonist that makes it different from mostly ergot-derived dopamine agonists, which usually target D2 dopamine receptors, e.g. pergolide and bromocriptine. D3 and D4 dopamine receptors are less often targeted in the management of Parkinson's Disease.

It has long been documented that most Parkinson's medications have sexuality-enhancing side effects. I was personally using Parkinson's medications for sexual enhancement long before Uprima was launched. I gained the most experience with Parlodel (bromocriptine), but I have also tested Doperpine (lisuride), Cabergoline (brand name: Dostinex), Mirapex (pramipexole), L-dopa, and deprenyl.

It has to be noted that the sexuality-enhancing side effects hold true for many but not all dopamine-enhancing Parkinson's medications. Whether or not a dopamine agonist enhances sexual functions seems to depend primarily on the dopamine receptor and sub-receptor sites it targets.

Unlike sildenafil citrate, dopamine agonists, whether Uprima or cabergoline (brand name: Dostinex), exert their pro-sexual effect not upon the erectile organ but upon the brain. They provoke erections

not by messing with the plumbing of male sexual function (i.e. blood supply to the penis), but by interfering with the wiring necessary for arousal, pleasure, and climax.

That sildenafil citrate only affects the plumbing, puts limits to its potential as a lifestyle drug. Sildenafil citrate will add little for men whose plumbing doesn't leak. On the other hand, a good shot of additional desire would be a welcome life enhancement for many people with whom there is nothing wrong physically but who just feel bored with their everyday life. For them, dopamine agonists could be a real enrichment, and even a medication that saves their marriages.

Dosage for a pro-sexual effect is difficult to determine for all dopamine agonists. This is the case because a dosage that is too high will inevitably result in nausea. This nausea can be so bad that the last thing one fancies is sex. This particularly is a problem with apomorphine, which indeed is commonly used to induce nausea. One of the advantages of cabergoline is that it has far fewer side effects.

Uprima has so far not been approved for marketing in the US. If a FDA endorsement is to be obtained for its marketing in the US as treatment for erectile dysfunction, the primary concern has to be to keep the nausea side effect at bay.

With apomorphine, nausea can be reduced if it gets into the bloodstream quick enough. Parkinson's patients use injected apomorphine. Parkinson's is a serious condition, a matter of life and death, and in such a case, patients can be expected to tolerate injections. But as treatment for non-life-threatening conditions like lack of libido or erectile dysfunction, injection medications have always been a flop.

Tap Pharmaceuticals, the makers of Uprima, try to get around the problem in two ways: by packaging the drug as sublingual, and by keeping the dosage per tablet rather low (2 or 3 mg per sublingual).

The point is: with small doses of apomorphine, the likelihood of nausea will be negligible. But so will the pro-sexual effect.

When I myself use Uprima, I go for 6 mg, which for me is a

borderline nausea dosage. With 6 mg of sublingual apomorphine, I'm not really nauseated, but I do have a definite preference for a horizontal position. And at that dosage, I do get a sexual kick out of the medication.