Patients with opiate addiction, who are treated with buprenorphine, often ask why the buprenorphine eliminates their depression as well. Many of these people have never felt better in their lives since starting this drug.

Buprenorphine is extremely effective for the treatment of opiate addiction, effectively stopping withdrawal and cravings. This is because of its actions as a partial Mu receptor agonist. Over time this partial Mu agonist action of buprenorphine allows the Mu receptor to move back towards normalcy.

There is another important opiate receptor in the brain called the kappa receptor. Much of the long lasting Post Acute Withdrawal syndrome felt by the addicted patient is due to the kappa over-activity that is associated with opiate withdrawal causing dysphoria, body aches, anxiety, and depression. This can last for months or even years and is an important cause for relapse. I believe that kappa activation may be an important cause of depression in many persons with substance abuse problems as well as in the general population, even without the extra stimulation of opiate withdrawal.

Buprenorphine is a potent, long acting kappa blocker. Opiates are not as specific in their kappa blocking actions as buprenorphine and most are short acting, so the patients that get benefit from this opiate action often must use frequent and ever higher doses of their opiate to get effective consistent blocking of kappa. This dose increase causes the Mu receptors to become less sensitive to opiates and therefore the patient requires higher and higher doses to get pain relief and stay out of withdrawal. This is the vicious cycle we so often see.

Many of these patients started taking Vicodin, Norco, or other opiate medication for legitimate pain, usually prescribed by their own physician. They find out very quickly that their depression, anxiety and lack of energy also disappears, often for the first time in their lives. I believe that this is due to kappa blocking. The usual cycle then results in addiction. These folks have often tried SSRI's and other antidepressants in the past without success. Buprenorphine often makes them feel wonderful. The Mu receptors get re-regulated in the short to medium term, but the kappa is still a problem. Most of these patients did not have a normal kappa system prior to opiates.
Many patients can taper their buprenorphine dose down to as low as 0.5 to 1 mg daily and feel fine. I believe that these folks are taking the drug as an antidepressant and are not addicted to opiates anymore than other depressed patients are addicted to Prozac. They need to continue the medication to treat their depression.

I think that many of these folks may have bipolar chemistry as well. We see this all the time in addicted patients. It runs through families genetically like a hot knife through butter. All physicians should screen their patients for a family history of substance abuse and psychiatric illness all the way back to grandparents, prior to medicating a patient, even for acute pain. Patients should of course be treated for their pain and monitored for the usual things we see in addicted patients so that corrective/preventative action may be taken early.

There has been a study using buprenorphine in a small number of patients with depression who had not responded to other antidepressants. Of the ten patients in the study, three had side effects and could not use the medication. Four of the others had complete recovery, two had significant improvement and one got worse. This clearly shows that buprenorphine has potential as an antidepressant and should be studied further. It certainly supports the observations of so many of physicians either treating patients or of the patients themselves that buprenorphine is an effective antidepressant. The exact dosage and patient types that would best be treated in this way needs to be worked out.


Post publication addendum (March 2007):
My article in the NAABT February newsletter was intended to educate patients and physicians about how buprenorphine works and to explain some of the drug's effects. I want to make it clear that this drug is not intended, nor FDA indicated, to treat depression and that the studies necessary to prove that it is effective have not been performed. Buprenorphine should be considered as possibly addicting itself and should not be generally used for this purpose. Further studies are indicated to explore this area. I am optimistic that they will provide the basis for improving the treatment of depression and anxiety in opiate dependent patients.

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