



Happy St. Patrick's Day !



PIC QUESTION OF THE WEEK: 3/19/07

Q: Can a patient taking selegiline for Parkinson's disease receive an SSRI?

A Selegiline is a selective inhibitor of monoamine oxidase-B (MAO-B) and labeled for the treatment of parkinsonian syndrome. At higher doses (≥ 30 mg/day), the drug is less selective and affects both MAO-A and MAO-B. In the CNS, decreased MAO-B activity primarily results in enhanced concentrations of dopamine. Levels of serotonin may also be affected. Combined use of selegiline with serotonergic agents produces an excess of the amine and possible development of *serotonin syndrome*. This syndrome is characterized by a triad of abnormalities that include mental-status changes, autonomic hyperactivity, and neuromuscular disorders. The major signs and symptoms of serotonin syndrome include confusion, coma, fever, hyperhidrosis, myoclonus, tremors, chills, rigidity, and hyperreflexia. It is estimated that nearly 50% of patients with Parkinson's disease suffer from depression. Drug selection for managing depression in patients receiving selegiline for parkinsonism is difficult because most of these compounds alter CNS serotonin levels. Thus, use of selective serotonin re-uptake inhibitors (SSRIs), tricyclic antidepressants (TCAs), venlafaxine and related compounds, bupropion, etc. in combination with selegiline could result in signs and symptoms of *serotonin syndrome*. The product literature for oral selegiline *warns* against its use within two weeks of discontinuing most SSRIs and within five weeks of stopping fluoxetine. This two week precaution also applies to TCAs. Transdermal selegiline (Emsam) produces higher concentrations of the drug and its use with other antidepressants is *contraindicated*. Two small retrospective studies concluded that standard doses of oral selegiline (≤ 10 mg/day) can safely be combined with various antidepressants including the SSRIs. A prospective trial evaluating the simultaneous use of citalopram and selegiline also demonstrated no significant pharmacodynamic or pharmacokinetic interaction between the drugs or signs of serotonin syndrome. Based on this limited information, it would appear most antidepressants, including the SSRIs, can be combined with standard oral doses of selegiline without significant risk of serotonin syndrome. Patients should be advised of the clinical presentation of serotonin syndrome prior to initiating any antidepressant while taking selegiline.

References:

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Robert M. Tobin, Pharmacy Clerkship Student

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