# Drug Monitor

## Support for Disputed SCI Treatment

Although previous trials have yielded conflicting results, a team of researchers from Mexico City's Instituto Mexicano del Seguro Social say the potassium channel blocker 4-aminopyridine (4-AP) can help patients with spinal cord injury (SCI). In their randomized, double-blind, placebo-controlled study, patients taking the drug had persistent functional improvements.

A total of 27 patients with long-term SCI were assigned to receive 12 weeks of either oral 4-AP or placebo. The initial 4-AP dosage of 5 mg/day was increased by 5 mg weekly, until the maximum dosage of 30 mg/day was reached.

Success—defined as any gain in motor function, sensation, or independence—was achieved significantly more often in the patients receiving 4-AP than in those receiving placebo (69% versus 46%). But when each scale was considered separately, only motor function retained significance (92% of 4-AP patients versus 46% of placebo patients, for a *P* value of .03).

The trial also involved a second 12-week period, during which patients received the opposite treatment. The chief goal of this period was to determine whether the drug's effects would last after it was stopped. Of the 12 patients from the original AP group who completed the study, eight (67%) had some degree of preserved sensation. In fact, in this group, sensation scores actually rose an average of 49% during the second 12 weeks. Independence scores also improved persistently in 10 of the 12 patients (83%). Preservation of motor function in seven patients was nonsignificant.

Of the adverse reactions that occurred in patients receiving 4-AP, none was serious and only one was moderate (vasospasm). The researchers conclude that 4-AP is safe for patients with SCI, but they advise monitoring enzyme levels and platelet counts and watching out for vasospasm and other adverse effects in those taking at least 30 mg/day.

Possible explanations for 4-AP's persistent effects include sequestration of active drug by the central nervous system; altered synaptic mechanisms; and changes in the number, molecular configuration, and sensitivity of axonal ion channels. The researchers add that the drug could drive some plasticity phenomena. They suggest that certain populations—such as younger patients and those with more recent injuries—are more likely to benefit from 4-AP, though even patients with long-term SCI had improved neurologic function in this trial.

Source: *Pharmacotherapy.* 2003;23:823–834.

## Abciximab: Safe for Patients with Renal Insufficiency?

Does an increased risk of bleeding outweigh the potential benefits of giving the glycoprotein IIb/IIIa inhibitor abciximab to patients with chronic renal insufficiency (CRI) who are undergoing percutaneous coronary intervention (PCI)? According to a team of researchers from the Mayo Clinic in Rochester, MN, the answer is no. They report that abciximab did not increase the post-PCI bleeding risk significantly in patients with CRI compared to those without.

The researchers analyzed data from 4,158 patients who underwent PCI at the clinic between April 1995 and August 1999. Although abciximab was associated with an overall higher risk of bleeding, the relationship between creatinine clearance and major bleeding in patients taking the drug was only marginally significant. And for minor or any bleeding, it was nonsignificant.

Few previous trials have addressed the safety and efficacy of glycoprotein IIb/IIIa inhibitors in patients with CRI. As a result, providers have been hesitant to use them in this population, whose bleeding risk already is increased. But, the researchers point out, patients with CRI who undergo PCI are at high risk for procedural failure, in-hospital adverse reactions, in-hospital mortality, and mortality on long-term follow-up—and thus, have much to gain from a treatment, like abciximab, that can reduce these complications. An accompanying editorial concurs with this assessment and calls for more aggressive use of the drug in this population. ●

Source: *Am Heart J.* 2003;146: 345–350, 213–214 [editorial].