Oral Clobazam for Treatment of Post Stroke Hypertonia

Technology #2174

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Hypertonia Hinders Recovery in Stroke Patients: Approximately 750,000 patients suffer a stroke in the United States annually. Of these, about two-thirds require rehabilitation for sequelae related to CNS damage, including aphasia, paralysis, and hypertonia. In 2003, there were over 4.7 million patients in the U.S. living with chronic stroke. Of those with hemiparesis, 63% developed hypertonia. Hypertonia, is a condition in which muscles maintain a level of contraction that both prevents normal movement and results in significant discomfort. It represents an impediment to conventional physical/occupation/speech therapy in these patients. Hypertonia is still present in 25-63% of stroke patients after 6 months. Post stroke hypertonia hinders the rehabilitation of these patients. However, despite the number of potential patients affected, there is relatively little development activity in the area of novel therapies for hypertonia. Hypertonia Drug Therapy for Stroke Patients: Researchers at Columbia University have found a new use of Clobazam in the treatment of post-stroke hypertonia and have administered it to patients. Clobazam offers the following advantages: • Clobazam is administered orally, and can be easily dosed • Oral dosing is considerably more cost-effective and less invasive than some other current drug treatments (such as intrathecal Baclofen or Botox injection, in which the drug is delivered directly into the cerebrospinal fluid) and surgical intervention (such as selective dorsal rhizotomy, in which the specific nerves causing spasticity are severed) • Clobazam has fewer sedative effects than other drugs administered orally for hypertonia (such as diazepam) • Clobazam has a long half-life and low sedative properties compared to other drugs in the benzodiazepine class • Clobazam specifically targets the GABA A receptors thought to counteract the CNS hyperexcitability causing hypertonia • Treatment of hypertonia caused by other types of brain injury

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