TREATMENT OF CENTRAL NERVOUS SYSTEM (CNS) ISCHEMIA WITH A PROSTAGLANDIN DERIVATIVE PGBX(U) UNIFORMED SERVICES UNIV OF THE HEALTH SCIENCES BETHESDA MD G FEUERSTEIN

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TREATMENT OF CENTRAL NERVOUS SYSTEM (CNS) ISCHEMIA WITH A PROSTAGLANDIN DERIVATIVE, PGBx.

The effect of PGBx on motor function was studied in a rabbit spinal cord ischemia model. Conscious rabbits were exposed to lumbar spinal cord ischemia for 25 min and the motor/neurological scores followed for 48 hrs. PGB (provided by Dr. Devlin, Philadelphia, PA) was administered in 6 doses of 2 ng/kg each, starting 1 hr after reperfusion. Motor/neurological function of hindlimbs was scored from 0-5 (0 = complete paralysis; 5 = normal) each hr for 12 hr and at 24 and 48 hr. In the first study, (n = 15), a PGB - sodium salt batch was used and enhanced recovery of motor functions was observed; in the second study (n = 15) PGB acid form was used without beneficial outcome; in the third study (n = 14) a new PGB sodium salt batch was used and no significant effect on recovery of motor functions was observed. Since the exact composition of each PGB batch is not known, we cannot exclude the possibility that the variability between the experiments is the result of quantitative and qualitative difference in the oligomer composition of PGBx. We strongly feel that continuation of this project would be only with specific active oligomers, e.g., PGBx trimer.

Key Words: spinal cord ischemia; PGBx; motor function.
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