Effects of Methylene Blue and Polyethelene Glycol on Facial Nerve Axotomy Recovery

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Injury and disease are common factors affecting peripheral nerves and can lead to loss of function. Recovery time after an injury is slow and not very efficient in humans. Treatment methods involving methylene blue (MB) and polyethylene glycol (PEG) have shown combinational effects in sciatic nerve axotomies. We are using behavior analysis of eye blink reflex and vibrissae orientation and movement as a measurement of rate of functional recovery. We will have treatment groups of both cut and crush rats. For each group we will be testing the effect of PEG/MB or no treatment control groups. The results of these treatment groups are significant to finding treatment options for clinical use.