CHARTING RECOVERY AFTER CERVICAL SCI IN ANIMAL MODELS

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Research Summary

Our laboratory has been focused on the problem of spinal cord injury (SCI) for many years. We have participated in the development of a variety of models and outcome measures to assess recovery of function including locomotor function, autonomic and sexual function and now forelimb function. It is these latter studies that I will address in the seminar. The goal of most of our work has been to understand the biological sequelae of injury and to use that knowledge to develop strategies for improving outcome after this devastating injury.

-- A diagram from one of these publications This is an illustration from Irvine et al 2010 above showing how we assess recovery of one feature of paw function.

Contact Volar Support: The rat is assessed for its ability to use the volar surface of the impaired forepaw to stabilize the cereal piece and in doing so, maintaining it in a position to aid eating. Contact volar support can be defined as either: None - No volar support by the forelimb during eating (<5% of the time). Some - volar support of the object does occur during eating but not always. Almost always - volar support of the object occurs nearly always or always during eating (≥95% of the time). Examples of recovery of volar support over time are shown above (i) 14 days post-injury, (ii) 28 days post-injury (iii) 42 days post-injury.

-- A list of 3 recent publications

