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Display Settings: AbstractRev Neurosci. 2008;19(1):47-60.**Animal models in spinal cord injury: a review.**Akhtar AZ, Pippin JJ, Sandusky CB.

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Abstract

Multiple neuroprotective agents have shown benefit for the treatment of acute spinal cord injury (SCI) in animal studies. However, clinical trials have, thus far, been uniformly disappointing. This review explores reasons for discrepancies between promising animal studies and disappointing clinical trials and potential barriers to extrapolation of research results from animals to humans. The three major barriers disclosed are: differences in injury type between laboratory-induced SCI and clinical SCI, difficulties in interpreting functional outcome in animals, and inter-species and interstrain differences in pathophysiology of SCI. These barriers can impair the effectiveness of animal models of SCI to predict human outcomes. While some of these barriers can be overcome, others are inherent to the animal models.

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