New treatment significantly improved bladder activity after spinal cord injury

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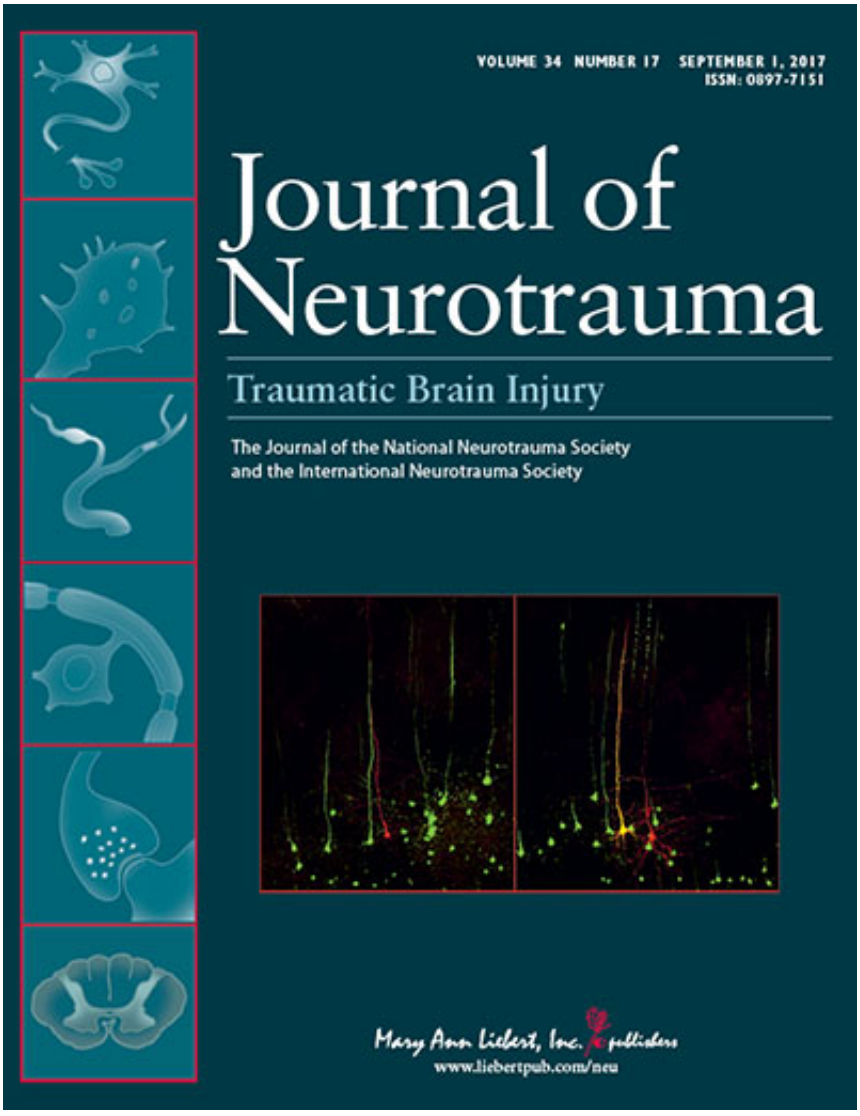

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Researchers have shown that compared to placebo, a drug treatment intended to prevent remodeling of the bladder wall and given within 48 hours after spinal cord injury (SCI) in dogs was associated with significantly higher bladder compliance. The long-term improvement seen in animals that had experienced intervertebral disc herniation and were treated with blockade of matrix metalloproteinases (MMPs) is reported in the *Journal of Neurotrauma*.

Jonathan Levine, DVM and coauthors from the College of Veterinary Medicine & Biomedical Sciences, Texas A&M University, College Station, TX and University of California, San Francisco designed a study to assess the effectiveness of the broad spectrum MMP inhibitor GM6001 in dogs with naturally occurring spinal cord injuries that are often accompanied by decreased bladder compliance, in which the bladder wall cannot stretch normally and pressure increases at lower fluid volumes. Reduced compliance is a major contributor to complications such as urinary tract infection, pyelonephritis, and ureteral reflux, as the researchers explain in the article entitled "Early Blockade of Matrix Metalloproteinases in Spinal-Cord-Injured Dogs Results in a Long-Term Increase in Bladder Compliance.

"This study reports on an exciting treatment for canines with low bladder compliance due to spontaneous spinal cord injury. Not only can this drug be potentially used by veterinarians as a therapy, but there is also the possibility of translating this treatment to the clinical SCI population as well," says W. Dalton Dietrich, III, PhD, Deputy Editor of *Journal of Neurotrauma* and Professor, University of Miami Miller School of Medicine, Miami, Florida.

More information: Jonathan M. Levine et al, Early Blockade of Matrix Metalloproteinases in Spinal-Cord–Injured Dogs Results in a Long-Term Increase in Bladder Compliance, *Journal of Neurotrauma* (2017). DOI: 10.1089/neu.2017.5001

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