Low back pain sufferers experience relief with new treatment

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Credit: University of Kentucky

Millions of Americans suffering from low back pain could soon have a

quick, cost-effective and permanent solution for the debilitating ailment. The solution, an injectable liquid called Réjuve, was pioneered by University of Kentucky researcher Tom Hedman and has received promising early results from a recent clinical study.

Réjuve, a product of Intralink-Spine Inc. and the focus of Hedman's research at UK, is an injectable orthopaedic device that mechanically strengthens the spinal disc and stabilizes the spinal joint. A key to Réjuve's effectiveness is the device's ability to promote crosslinking of fibrous proteins including collagen, which rejuvenates the spinal disk area.

According to an Intralink-Spine news release, one patient reported that he played 18 holes of golf three days after the Réjuve procedure and another climbed the Sydney Harbor Bridge a few days post procedure.

"This treatment addresses the core deficiencies that contribute to low back pain, rather than just temporarily masking the pain like existing approaches," said Hedman, who is an adjunct associate professor in the F. Joseph Halcomb III M.D. Department of Biomedical Engineering and chief scientific officer at Intralink-Spine. "Secondly, the benefit is almost immediate. Within days these patients are returning to work and strenuous activities with a dramatic reduction in pain."

Hedman also said both the cost of Réjuve and the 15-20-minute image-guided delivery procedure are considerably less than current and emerging treatments.

"This is obviously extremely important as we see health care costs exploding in this country and abroad," he said.

The company is hopeful that patients will experience permanent low back pain relief with just one or two Réjuve injections. Currently, many

low back pain sufferers receive numerous epidural steroid injections each year.

Hedman joined the UK faculty in 2010 and brought Intralink-Spine to UK's Coldstream Research Campus. He credits biomedical engineering faculty for providing collegial support and advice as Intralink-Spine has translated technology from the lab to the clinic. Additionally, the UK College of Engineering and College of Medicine, the National Institutes of Health and the Commonwealth of Kentucky provided a portion of the financial support needed to complete the preclinical testing of Réjuve.

"The excitement of seeing technology that you've tested and developed for over 18 years, at long last, reach the clinical stage of testing is indescribable," Hedman said. "Health sciences researchers like myself choose this profession with the desire to see our life's work benefit others. It's still very early, but every one of our patients thus far are happy with the results of the treatment."

Hedman and the company are now planning a larger multisite clinical study.

Provided by University of Kentucky