

IF1-29

Initial Results using Khan Kinetic Treatment™ as a Low Back Pain Treatment Option¹G. Desmoulin, ²N. Yasin and ³D. Chen¹Optima Health Solutions International Corporation.
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by Optima Health.**Objectives:** Demonstrate initial results using Khan Kinetic Treatment [KKT™] as a low back pain [LBP] treatment option.**Methods:** A self-reported functional assessment, LBP questionnaire, and pain medication dose were used as the outcome measures for 48 matched subjects randomly split into two groups [treatment and control] . The treatment group underwent a treatment period consisting of several individual KKT™ treatments over a few weeks period, while the control group continued conventional treatment. A paired t-test analyzed the functional assessment scores and a two group by two LBP score [positive or non-positive] McNemar's test was used for the LBP questionnaires. Pain medication dose analysis consisted of a two group by two pain medication dose outcome [same or reduced] McNemar's test.**Results:** Compared to a control group, the treatment group lowered both their self-recorded LBP scores [$P < 0.001$] and showed a strong positive trend to lower their pain medication dose [$P = 0.054$] . Only the range of motion assessment questionnaire [range of motion, overall activity, and recreation/work activities] detected changes in these measurements [$P = 0.046$, $P = 0.061$, $P = 0.052$, respectively] .**Conclusions:** Although we await blinded and randomized placebo controlled trials, initial results suggest KKT™ as an effective treatment for LBP and display an improvement to the range of motion, as well as a decrease in the need for pain relieving medication.

IS1-24

Adjacent instability after instrument lumbar fusion

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IS1-25

The Positioning Study of Cervical Vertebra Pedicle Axial Line Projective Point by CT Image Reconstruction

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Safe placement of the screws is the key point of the trans-pedicle internal fixation, and the entry point, the length and the direction of the screws is the focal point of the operation . The ideal procedure is inserting the screw along the axis of the

pedicle . However there are scarce imageology research about the morphology of the cervical vertebrae pedicle have been reported . The authors carried out the morphometric measurement of the point and the axis of pedicle of C3-C7 by the high-speed spiral CT and the 3D reconstructive software, and obtained relative data to enhance the safety and the accuracy of the trans-pedicle internal fixation.

IS1-26

The comparison of single or combined operative approach for the cervical spondylotic myelopathy (csm) with multilevel anterior/posterior compression and huge disc protrusion or osteofyte formation.

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Background: Surgical approach for the cervical spondylotic myelopathy (CSM) with multilevel anterior/posterior compression and huge disc protrusion or osteofyte formation has remained uncertain. Some authors suggested taking either anterior or posterior approach. Patients may need second operation if their neurological recovery remains unsatisfactory six months after the surgery. There are few literature reports about comparison of single or combined approach for these pathologies.**Purpose:** This retrospective study was designed to evaluate the clinical outcome of CSM with these pathologies treated by single anterior or posterior and one-stage combined approach decompression.**Study design/setting:** 132 CSM patients with multilevel compression and obvious anterior compression (cord compression ratio more than 50% on MRI scan) were divided into three groups: anterior, posterior and one stage combined approach.**Methods:** Group A (53 cases) received one stage posterior-anterior decompression. Group B (48 cases) received laminoplasty. Group C (31 cases) received standard ACDF. All patients obtained minimal 12-months follow-up with average 26.92 months. The neurological status was assessed using Japanese Orthopaedic Association 17 score scales. The difference between three groups was compared and the affecting factors were analyzed.**Results:** The recovery rates in group A were 75.8%, 81.7% and 84.5% in 3, 6 and 12 months, respectively, after the operation. They were significantly better than in group B (61.4%, 65.8% and 70.3%) and group C (66.5%, 68.7% and 72.5%) ($p < 0.05$) . By the time of 6 months, 100% cases achieved excellent and good recovery rate and pre-operative symptoms completely disappeared in 16 patients in group A. 81% cases in group B and C achieved excellent and good recovery rate, respectively. There were 2 cases in group B and 1 case in group C underwent second operation 1 year later due to unsatisfactory recovery or recurrence. The results had no relation with the age, duration of symptoms and the