

## **Trans1 Publication, Abstract & Poster List**

### **Original Articles, Scientific Journal & Textbook Publications (Index Medicus)**

- Cragg A, Carl A, Casteneda F, Dickman C, Guterman L, Oliveira C: **New Percutaneous Access Method for Minimally Invasive Anterior Lumbosacral Surgery.** J Spinal Disord Tech 17(1):21-28, 2004
- Cragg A, Carl A, Casteneda F, Dickman C, Guterman L, Ledet E, Oliveira C: **Percutaneous Axial LumbarSpine Surgery (AxiaLIF). An Anatomical Approach to Minimally Invasive Spine Surgery.** Editors Mick Perez Cruet, M.D., Larry Khoo, M.D. and Ricard G. Fessler, M.D., Ph.D. Quality Medical Publishing, St. Louis, MO, April 2006, Chapter 38, pp. 38: 1-17.
- Ledet E, Tymeson M, Salerno S, Carl A, Cragg A: **Biomechanical Evaluation of a Novel Lumbosacral Axial Fixation Device,** Journal of Biomechanical Engineering, November 2005, Volume 127, Issue 6, pp. 929-933
- Khoo L, Marotta N, Cosar M, Pimenta L : **Novel Minimally-Invasive Presacral Approach and Instrumentation Technique for Anterior L5-S1 Intervertebral Discectomy and Fusion: Technical Description and Case Presentations,** J Neurosurgery and American Association of Neurological Surgeons: Neurosurgical Focus, Volume 20, January, 2006
- Ledet EH, Carl AL, Cragg A. **Novel Lumbosacral Axial Fixation Techniques.** Expert Review of Medical Devices, 2006; 3(3); 327-34.
- Yuan P, Day T, Albert T, Morrison W, Pimenta L, Cragg A, Weinstein M: **Anatomy of the Percutaneous Presacral Space for a Novel Fusion Technique,** J Spinal Disord Tech, 2006 June; 19 (4):237-241
- Cragg A, Carl A, Ledet E, Diaz R and Pimenta L. **"Percutaneous Axial Lumbar Spine Surgery."** An Anatomical Approach to Minimally Invasive Spine Surgery. St. Louis, MO: Quality Medical, Inc., 2006. 653-670.
- Akeson B, Wu C, Mehbod A, Transfeldt E: **Biomechanical Evaluation of Anterior Transsacral Fixation,** J Spinal Disord Tech. 21(1):39-44, February 2008.
- Asgarzadie, F; **Khoo LT**; Cosar, M; Marotta, N; Pimenta, L. **One Year Outcomes of Minimally-Invasive Presacral Approach and Instrumentation Technique for Anterior Lumbosacral Intervertebral Discectomy and Fusion.** Proceedings of the 22<sup>nd</sup> Annual Meeting, The Spine Journal, Volume 7, Number 55, Sept/Oct 2007, Special Interest Paper Presentations 4: Fusion, 26-27S.

6/4/2008

- Anand, N; Baron, E; Thayanithan, G; Khalsa, K; Goldstein, T. **Minimally Invasive Multilevel Percutaneous Correction and Fusion for Adult Lumbar Degenerative Scoliosis**, J Spinal Disord Tech, Accepted for Publication. Oct 2008.
- Shen, F; Samartzis, D; Khanna, A; Anderson, DA. **Minimally Invasive Techniques for Lumbar Interbody Fusions**. Orthop Clin N Am 38 (2007) 373–386.
- Coric D; Mummaneni, P: **Nucleus replacement technologies. Invited submission from the Joint Section Meeting on Disorders of the Spine and Peripheral Nerves, March 2007**. J Neurosurg Spine 8:115–120, 2008.
- Diaz R, Pimenta L, Nicola H, Khoo L, Sasso R, Wessman B, Cragg A: **TransSI® Percutaneous Nucleus Replacement (PNR). Motion Preservation Surgery of the Spine - Advanced Techniques and Controversies: Expert Consult**. Editors James J. Yue, MD, Rudolph Bertagnoli, MD, Paul C. McAfee, MD and Howard S. An, MD. Saunders Publishing, St. Louis, MO, June 2008, Chapter 57, pp: xxx-xxx.
- Aryan H, Newman C, Acosta F, Coover C, Ames C. **Percutaneous Axial Lumbar Interbody Fusion (AxiaLIF) of the L5-S1 Segment: Initial Clinical and Radiographic Experience**. Minimally Invasive Neurosurgery. Accepted, not yet published. (35 patient series, 14 months, prospective, non-randomized)
- Tobler W, Bohinski R, Basham S, Jamarillo J. **Lumbar Interbody Fusion: A Comparative Clinical Assessment of the AxiaLIF System**. Neurosurgical Focus. Accepted, not yet published. (25 patient series, prospective, non-randomized, historical fusion controls)
- Aryan H, Newman C, Acosta F, Coover C, Ames C. **Percutaneous Axial Lumbar Interbody Fusion (AxiaLIF) of the L5-S1 Segment: Initial Clinical and Radiographic Experience**. J Spinal Disord Tech, Accepted for Publication, not yet published. (35 patient series, 24 months, prospective, non-randomized)

### Symposia Presentation

- Pimenta L, Bellera F, Carl A, Ledet E, Cragg A: **New Percutaneous Access Method and Implant for L4-S1 Spinal Fusion Surgery**. Presented at AANS 2004, Session 118 New & Evolving MIS Techniques: Drs. Fessler, Pimenta, Smith & Isaacs, 1-6 May 2004, Orlando.
- Albert T, Lieberman I: **Pre-Sacral Approaches & MIS Spine Surgery**, Innovative Techniques in Spine Surgery 2<sup>nd</sup> Annual Meeting, 20-23 July 2005, Los Cabos, Mexico

6/4/2008

- Pimenta L, Guerrero L, Cragg A, Diaz R: **Prospective Clinical Feasibility Study of the Novel Percutaneous Nucleus Replacement (PNR) System. Early Clinical Results.** Presented at the 13<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), 12-15 July 2006, Athens, Greece.
- Aryan, HE; FL Acosta; CP Ames: **Initial Clinical and Radiographic Results of a Minimally Invasive Presacral Approach for L5-S1 Interbody Fusion.** AANS/CNS Section on Disorders of the Spine and Peripheral Nerves (22<sup>nd</sup> Annual Meeting), Lake Buena Vista, Florida, 2006.
- Pimenta L, Guerrero L, Cragg A, Diaz R: **Early clinical and biomechanical evaluation of the axial lumbar percutaneous nucleus replacement (PNR),** Spine Arthroplasty Society 6: Global Symposium on Motion Preservation Technology. May 9-13, 2006, Montreal, Canada.
- Pimenta L, Guerrero L, Cragg A, Diaz R: **Percutaneous Nucleus Replacement (PNR) L5-S1. A new minimal invasive arthroplasty device. A one year clinical and radiological follow-up.** 2006 Spine Across The Sea; Annual Meeting. July, 2006. Hawaii, USA.
- Pimenta L, Guerrero L, Cragg A, Diaz R: **Minimal Invasive Percutaneous Presacral Axial Lumbar Fusion (AxiaLIF). Prospective clinical and radiographic results after 30 months follow-up.** Section on Disorders of the Spine and Peripheral Nerves, Congress of Neurosurgeons, Chicago, IL, October 7-12, 2006.
- Pimenta L, Guerrero L, Cragg A, Nicola H, Diaz R: **Minimal Invasive Percutaneous Presacral Axial Lumbar Fusion (AxiaLIF). Clinical and Radiographic results after 30 months follow-up.** Session: Spine/Peripheral Nerve, American Association of Neurological Surgeons, Washington, DC, April 14-19, 2007
- Beaubien B, Freeman A, Wessman B, Loughran G: **An in vitro, cadaveric model evaluation of a novel prosthetic nucleus implanted through the pre-sacral approach.** Session: Nucleus Replacement, Spine Arthroplasty Society, Berlin, Germany, May 1-5, 2007.
- Pimenta L, Guerrero L, Cragg A, Nicola H, Diaz R: **Percutaneous Nucleus Replacement (PNR): Initial Clinical Experience.** Session: Innovative Technologies - Mini Papers. Spine Arthroplasty Society, Berlin, Germany, May 1-5, 2007.
- Bradley WD, Rousch T, Hisey M, Ohnmeiss D: **Interbody Fusion Using a Unique Trans-sacral Approach.** Paper #99. International Meeting of Advanced Spinal Techniques, 11-14 July 2007, Paradise Island, Bahamas.

6/4/2008

- Asgarzadie, F; **Khoo LT**; Cosar, M; Marotta, N; Pimenta, L. **One Year Outcomes of Minimally-Invasive Presacral Approach and Instrumentation Technique for Anterior Lumbosacral Intervertebral Discectomy and Fusion.** Presented at the North American Spine Society, Special Interest Paper Presentations, 22-27 October 2007, Austin, TX.
- Tobler, W; Bohinski, R: **Experience in 150 Cases with the TranS1 Minimally Invasive Fusion Technique at L5-S1.** Global Symposium on Motion Preservation Technology 8th Annual Meeting from May 6-9, 2008, Miami, Florida.
- Pimenta, L; Arias, C: **Two Levels Presacral Axial Lumbar Interbody Fusion (AxialIF). A Prospective 12 Months Follow up: Clinical And Radiological Results.** Global Symposium on Motion Preservation Technology 8th Annual Meeting from May 6-9, 2008, Miami, Florida.
- Laughran, G; Beauboin, B: **A Finite Element Study of L5-S1 Spinal Biomechanics Comparing Different Surgical Therapies.** Global Symposium on Motion Preservation Technology 8th Annual Meeting from May 6-9, 2008, Miami, Florida.
- Anand, N; Baron, E; Thaiyananthan, T: **Novel Minimally Invasive Percutaneous Multi-Level 360 Degree Fusion for Lumbar Degenerative Scoliosis - Feasibility, Technique and Early Results.** Global Symposium on Motion Preservation Technology 8th Annual Meeting from May 6-9, 2008, Miami, Florida.
- Zeilstra, D. **Transaxial fixation of the lumbosacral segment as a stand-alone procedure.** Oral paper presentation at EuroSpine/SPINEWEEK, May 26-31, 2008, Geneva, Switzerland.
- Pimenta, L; Arias, C: **Two levels presacral axial lumbar interbody fusion (Axialif). A prospective 18 month follow up: clinical and radiological results.** Oral paper presentation at EuroSpine/SPINEWEEK, May 26-31, 2008, Geneva, Switzerland.
- Anand, N; Baron, E; Thaiyananthan, T: **Minimally Invasive Percutaneous Multilevel 360 degree fusion for Lumbar Degenerative Scoliosis: Radiologic and Clinical Follow-up.** Paper #89. International Meeting of Advanced Spinal Techniques, 8-11 July 2008, Hong Kong, China.
- Tobler, W; Bohinski, R: **Axial lumbar interbody fusion) a new, minimally invasive technique at L5-S1: clinical outcomes, complications, and fusion rates in 50 patients at 1-year follow up.** ABSTRACT NO: 65, Section on Disorders of the Spine and Peripheral Nerves Select Abstract Session. Congress of Neurological Surgeons, 20-25 September 2008, Orlando, FL.

6/4/2008

### Scientific Posters

- Cragg A, Carl A, Castaneda F, Dickman C, Guterman L, Oliveira C: **New Percutaneous Access Method for Minimally Invasive Anterior Lumbosacral Surgery**. World Spine, Chicago, IL August 2003
- Cragg A, Carl A, Castaneda F, Dickman, C, Guterman L, Oliveira C: **Percutaneous Axial Lumbar Fusion: A feasibility study**. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, San Diego, CA March 16-19, 2004
- Yuan PS, Albert TJ, Pimenta L, Cragg A: **Anatomy of the Percutaneous Presacral Approach to the Lumbosacral Spine: Relevance for a Novel Fusion Technique**. Presented as IMAST 2004 e-poster, 1-3 July 2004, Southampton Bermuda
- Oliveira C, Carl A, Dickman C, Guterman L, Cragg A: **New Percutaneous Approach For Axial Lumbar Interbody Fusion**. Presented as IMAST 2004 Scientific Poster, 1-3 July 2004, Southampton Bermuda
- Pimenta L, Bellera F, Carl A, Ledet E, Cragg A: **New Percutaneous Access Method and Implant for L4-S1 Spinal Fusion Surgery**. Presented at the IMAST 2004 Scientific Poster, 1-3 July 2004, Southampton Bermuda
- Pimenta L, Diaz R, Cragg A: **Percutaneous Access, Fusion Results & Method and Implant for L4-S1 Spinal Fusion Surgery**. Presented at the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, 9-12 March 2005, Phoenix, AZ
- Pimenta L, Guerrero L, Cragg A, Diaz R: **360 degrees minimal invasive axial percutaneous L5-S1 fusion (AxiaLIF). 2 years clinical and radiological follow-up**. Presented at the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, 15-18 March 2006, Lake Buena Vista, FL
- Pimenta L, Guerrero L, Cragg A, Diaz R: **Feasibility Study of Percutaneous Axial Lumbar fusion: Interim Results**. Presented at the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, 15-18 March 2006, Lake Buena Vista, FL
- Pimenta L, Guerrero L, Cragg A, Diaz R: **Percutaneous Presacral AxiaLIF. A 360 degree minimal invasive fusion to treatment degenerative lumbosacral spine disease. Results at 30 months follow-up**. Presented at the 13<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), 12-15 July 2006, Athens, Greece.

6/4/2008

- Pimenta L, Guerrero L, Cragg A, Diaz R: **A Prospective 30 months study of a minimal invasive percutaneous axial lumbar fusion (AxiaLIF). Clinical and radiographic follow-up results.** Presented at the 13<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), 12-15 July 2006, Athens, Greece.
- Acosta, FL; HE Aryan; CP Ames: **Initial Results of a Percutaneous Presacral Approach for L5-S1 Interbody Fusion.** American Association of Neurological Surgeons (74<sup>th</sup> Annual Meeting), San Francisco, California, 2006.
- Aryan, HE; FL Acosta; CP Ames: **Percutaneous Pre-Sacral Interbody Fusion for Degeneration of the L5-S1 Disc Space.** 13<sup>th</sup> Annual Meeting International Meeting on Advanced Spine Techniques (IMAST), 12-15 July 2006, Athens, Greece.
- Kitchel, S: **Stand Alone Axial ALIF with TranS1,** 13<sup>th</sup> Annual Meeting International Meeting on Advanced Spine Techniques (IMAST), 12-15 July 2006, Athens, Greece.
- Asgarzadie, F; Khoo LT; Cosar, M; Marotta, N; Pimenta, L. **One Year Outcomes of Minimally-Invasive Presacral Approach and Instrumentation Technique for Anterior Lumbosacral Intervertebral Discectomy and Fusion.** Presented at the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, 6-10 March 2007, Scottsdale, AZ.
- Bradley WD, Rousch T, Hisey M, Ohnmeiss D: **Interbody Fusion Using a Unique Trans-sacral Approach.** Minimally Invasive Spine Society, 16-17 November 2007, San Diego, CA.
- Madera M, Tobler W: **Outpatient Fusion at L5-S1 with the TranS1 Technique.** Minimally Invasive Spine Society, 16-17 November 2007, San Diego, CA.
- Pimenta, L; Arias, C: **Two Levels Presacral Axial Lumbar Interbody Fusion (AxiaLIF). A Prospective 12 Months Follow up: Clinical And Radiological Results.** Presented at the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Feb 27 – March 1, 2008, Orlando, FL.
- Anand N, Wupperman R, Rosemann R, Baron E: **Minimally Invasive AxiALIF L5-S1 Interbody Fusion For Anterior Column Support at The End Of A Long Segment Fusion: Early Results.** Global Symposium on Motion Preservation Technology 8th Annual Meeting from May 6-9, 2008, Miami, Florida.
- Bradley, WD, Roush, T, Ohnmeiss, D: **Minimally Invasive Trans-sacral Approach to L5-S1 Interbody Fusion: Technique and Clinical Results.** Global Symposium on Motion Preservation Technology 8th Annual Meeting from May 6-9, 2008, Miami, Florida.

6/4/2008

- Aryan H, Newman C, Acosta F, Coover C, Ames C. **Percutaneous Axial Lumbar Interbody Fusion (AxiaLIF) of the L5-S1 Segment: Initial Clinical and Radiographic Experience.** Global Symposium on Motion Preservation Technology 8th Annual Meeting from May 6-9, 2008, Miami, Florida.
- Anand, N; Baron, E; Thaiyananthan, T: **Minimally invasive AxiaLIF L5-S1 interbody fusion for anterior column support at the end of a long segment fusion.** E-Poster ID: 363. International Meeting of Advanced Spinal Techniques, 8-11 July 2008, Hong Kong, China.
- Tobler, W; Bohinski, R: **Axial lumbar interbody fusion) a new, minimally invasive technique at L5-S1: clinical outcomes, complications, and fusion rates in 50 patients at 1-year follow up.** ABSTRACT NO: 65, Section on Disorders of the Spine and Peripheral Nerves Select Abstract Session. Congress of Neurological Surgeons, 20-25 September 2008, Orlando, FL.

#### **Instructional Learning Courses**

- Lieberman, I.H.: **TranS1 AxLIF Technique, Biomechanics and Discectomy Validation.** Presented at the IMAST 2004 training session, 1-3 July 2004, Southampton Bermuda
- Pimenta L, Bellera F, Carl A, Ledet E, Cragg A: **New Percutaneous Access Method and Implant for L4-S1 Spinal Fusion Surgery.** Presented at the IMAST 2004 Instructional Learning Course, 1-3 July 2004, Southampton Bermuda
- Khoo L, Pimenta L: **AxiaLIF: The Least Invasive Technique of Interbody Fusion,** The American Association of Neurological Surgeons, 73<sup>rd</sup> Annual Meeting, Practical Course Instruction, 16-21 April 2005, New Orleans, LA
- Lieberman I, Khoo L, Pimenta, L: **Least Invasive Access for L5-S1 Lumbar Fusion,** Presented at the IMAST 2005 Instructional Learning Course, 7-9 July 2005, Banff, Canada
- Tobler W: **AxiaLIF: Less Invasive Technique of L5-S1 Interbody Fusion,** The American Association of Neurological Surgeons, 74<sup>th</sup> Annual Meeting, Practical Course Instruction, 22-27 April 2006, San Francisco, CA
- Lieberman I, Ames C, Pimenta, L: **AxiaLIF Clinical Results at One Year for L5-S1 Lumbar Fusion,** Presented at the IMAST 2006 Instructional Learning Course, 12-15 July 2006, Athens, Greece

6/4/2008

- Tobler W: **AxiaLIF: One Year Clinical Results of L5-S1 Interbody Fusion**, The American Association of Neurological Surgeons, 75<sup>th</sup> Annual Meeting, Practical Course Instruction, 14-19 April 2007, Washington, DC
- Bradley W, Anand N, Pimenta, L: **AxiaLIF: Advanced Techniques and Indications in Complex Lumbar Spine**, Presented at the IMAST 2007 Instructional Learning Course, 11-14 July 2007, Paradise Island, Bahamas

**Peer Reviewed Clinical Papers Submitted, Not Yet Accepted for Publication**

- Pimenta L, Díaz R, Nicola H, Cragg A. **Minimal Invasive Percutaneous Presacral Axial Lumbar Fusion (AxiaLIF). A Prospective 30 Months Study: Clinical and Radiological Follow-Up Results.** J Spine Arthroplasty Society. Submitted, not yet accepted. (26 patient series, prospective, non-randomized, historical fusion controls)
- Tobler, W, Bohinski, R, Ferrara, L: **Axial Lumbar Interbody Fusion: Clinical Outcomes, Complications and Fusion Rates of a 2-year Follow Up Study.** J Neurosurgery and American Association of Neurological Surgeons: Neurosurgical Focus, Submitted, Not Yet Published.
- Luther, N, Tomasino, A, Parikh, K, Härtl, R: **3D-Neuronavigation for Minimally Invasive Presacral Approach to L5/S1 Fusion with Posterior Stabilization.** J Neurosurgery and American Association of Neurological Surgeons: Neurosurgical Focus, Submitted, Not Yet Published.