UNLEASH™

"SENTIO™ MMG helped me avoid key neural elements in order to place a 16° lordotic CONDUIT™ Lateral cage."

"The VIPER PRIME™ System reduces steps for percutaneous screw placement and made for efficient posterior fixation."

Peter Grossi, MD

Chief of Neurosurgery
Duke Raleigh Hospital

UNLEASHED: Direct Lateral & MIS TLIF featuring CONDUIT™ Lateral Interbody System, SENTIO™ MMG, X-PAC Expandable Lumbar Cage System, and VIPER PRIME™ System

Peter Grossi, MD

Patient History:

- 72 yo male
- 3 years back, left buttock, and posterolateral leg pain
- Full strength on exam, but develops leg> right ankle weakness with ambulation
- Failed non op: physical therapy, medical management, oral prednisone daily, epidural steroid injections

Surgical Intervention:

L3-4 Lateral Transpsoas Interbody Fusion

- Phantom XL3™ Lateral Lumbar Access System
- SENTIO™ MMG
- CONDUIT™ Lateral Interbody System (12 x 22 x 55mm, 16° Lordotic Cage)

L4-5 Transforaminal Lumbar Interbody Fusion

- X-PAC Expandable Lumbar Cage System (12x28 x 7-14mm), Lordotic Expandable TLIF Cage)

L3-4 MIS bilateral decompression via unilateral approach

- SPOTLIGHT™ Access System (18mm Tube)

Pre-Op Notes:

- Grade 1-2 Spondylolisthesis at L3-4 with severe central and bilateral foraminal stenosis
- Complete collapse of L4-5 Disc space with slight line of vacuum disc, bridging bone posteriorly and mild-moderate central stenosis and bilateral lateral recess and foraminal stenosis
- L4-5 Level is transitional with Anterior displacement of the psoas at the L4-5 Level ("mickey mouse" psoas at L4-5)
- 12 degrees of segmental lordosis from L3-L5

L3-5 Posterior Fusion with Pedicle Screw Instrumentation

- VIPER PRIME™ Screw System (7.0 x 45mm VIPER PRIME Screws x 6, 70mm rods)
- Reduction via VIPER PRIME System mechanism
- Compression with MIS compressors on the Left side

Bilateral Ultrasound-guided Posterior Erector Spinae Blocks with EXPAREL® (liposomal bupivacaine - 266mg)

DePuy Synthes
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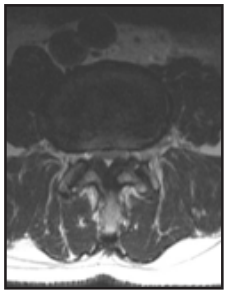
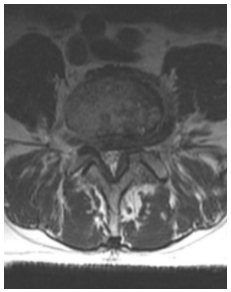
Pre-Op Images (continued):

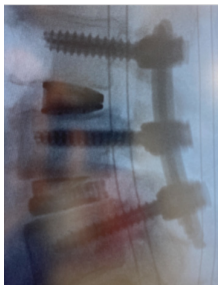


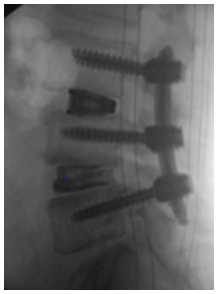
(L3-4)

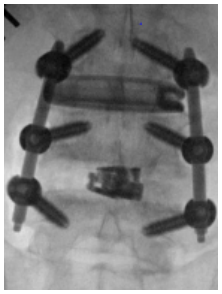


(L4-5)

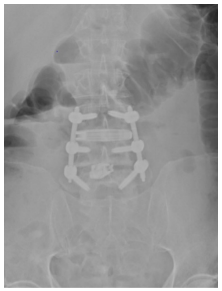
Intra-Op Images:

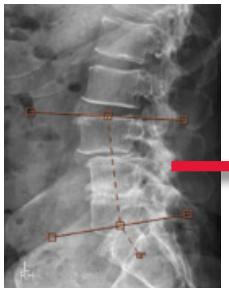




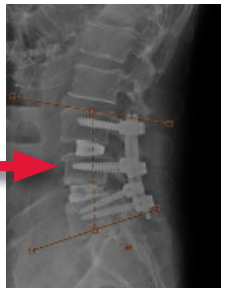


Post-Op Images:





12° Lordosis from L3-5



28° Lordosis from L3-5

Outcome Data:

- Total operative time 3:30
- EBL = 150cc
- Immediate post-op: complete resolution of radicular leg pain
- Tolerable back pain
- Mild 4+/5 Right Hip flexor weakness, otherwise full strength and sensation
- Discharged to home, POD 2 on Tramadol

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Dr. Peter Grossi is presenting on behalf of DePuy Synthes Spine. His presentation reflects the opinions of the individual presenter, and the steps described may not encompass the complete steps of the procedure. Additionally, other surgeons may prefer different techniques, approaches, etc., as individual surgeon experience in his clinical practice, as well as patient needs, may dictate variation in procedure steps. Accordingly, results from any case studies reported in this presentation may not be predictive of results in other cases. Before using any medical device, review all labeling, including without limitation; the Instructions For Use (IFU), and relevant package inserts with particular attention to the indications, contraindications, warnings and precautions, and steps for use of the device(s).

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The legal manufacturer of the Phantom XL3™ Lateral Retractor is TeDan Surgical Innovations.
The legal manufacturer of the X-PAC Expandable Lumbar Cage System is Expanding Innovations, Inc.

1. DePuy Synthes CONDUIT™ Interbody Platform, Validation of Strut diameter Summary, 1st March 2021, VAL2016-043.
2. J. Lincks, B.D. Boyan, C.R. Blanchard, C.H. Lohmann, Y. Liu, D.L. Cochran, D.D. Dean, Z. Schwartz, Response of MG63 osteoblast-like cells to titanium and titanium alloy is dependent on surface roughness and composition. Biomaterials. 1998; 19:1-12.
3. DePuy Synthes CONDUIT™ Interbody Platform, P773-01, Characterization of EIT Cellular Titan, 17th April 2018.
4. Thomas J. Webster, Jeremiah U. Ejiofor, Increased osteoblast adhesion on nanophase metals: Ti, Ti6Al4V, and CoCrMo. Elsevier(2003):1-9.
5. DePuy Synthes CONDUIT™ Interbody Platform, P773-01, Characterization of EIT Cellular Titan, 17th April 2018.
6. DePuy Synthes Spine. X-PAC DHF. Adaptiv. #103762947

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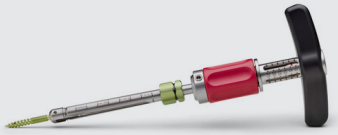
*The **Phantom XL3™ Lateral Lumbar Access System** transforms the lateral surgical retraction approach by increasing instrumentation stability through the integration of surgical access design elements—all with the focus of elevating the surgeon's workflow performance.*

*The **CONDUIT™ Interbody System** is the first ever 3D printed cage platform with nano-scale features cleared by the FDA. It consists of 3D-printed cellular titanium implants that feature 80% porous[1] macro-[2], micro-[3], and nanostructures[4], designed to mimic the published properties of bone.[5]*

***X-PAC EXPANDABLE CAGE** Experience the confidence of a non-screw based expandable cage: designed to meet surgeons' evolving needs and achieve optimal fit for each unique patient anatomy.[6]*



*The **VIPER PRIME™ System** is a technique for percutaneous pedicle screw placement that enables surgeons to target pedicles and insert screws in one single instrument pass.*