# **UNLEASH®**



"VIPER PRIME® Screw System is an absolute time saver."

"Good implants make good surgeons achieve consistently great results. **CONDUIT™** Interbody is that implant for me, offering tailored solutions throughout the lumbar spine including L5-S1."

"In my opinion, ATP is the single best approach to give wide access to all lumbar levels, including L5-S1."



Dr. Kamal Woods

## **UNLEASHED:** Multilevel ATP (L3-S1) featuring CONDUIT™ Interbody System & VIPER PRIME® Screw System

Dr. Kamal Woods, MD, MBA, FAANS

President of Vertra®, Inc. | Dayton, OH

#### **Patient History:**

- 75-year-old male
- L3-4 and L4-5 minimally invasive laminectomy 18 months prior, at another facility
- Initially did well, but recently developed recurrent back pain and bilateral lower extremity cramping with standing and walking
- Improved with sitting and leaning on shopping cart
- No bowel or bladder complaints
- Completed 8 weeks of physical therapy
- Had a series of 3 lumbar epidural steroid injections
- Minimal to no relief with PT
- Felt that epidural made pain worse

#### **Surgical Intervention: L3-S1 Anterior Column Reconstruction with Percutaneous Posterior** Fixation utilizing the UNLEASH® ATP **Procedural Solution**

- INSIGHT® Lateral Access System (L3-L5)
- SYNFRAME® Access & Retractor System (L5-S1)
- CONDUIT™ Lateral Interbody (L3-L5)
- CONDUIT™ ALIF Interbody & Aegis plate (L5-S1)
- VIPER PRIME® Screws: Posterior instrumentation skin-to-skin in 40 mins
- FIBERGRAFT® Bioactive Glass

#### **Outcome Data:**

- Kept in 23-hour observation after surgery
- Ambulated within 3 hours of surgery
- Estimated blood loss for entire surgery 40 ml
- Opioid-free pain management after surgery
- Discharged home the morning after surgery
- Resumed normal activities by 4 months postop



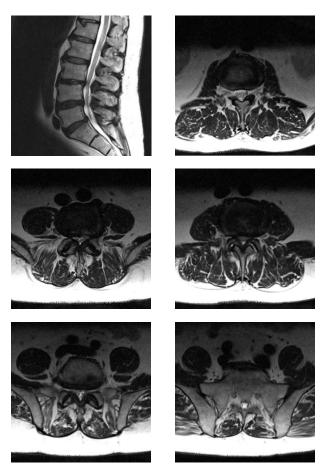
The CONDUIT™ Interbody System is the first 3D printed cage platform with nano-scale features cleared by the FDA. It consists of 3D-printed cellular titanium implants that feature 80% porous macro-, micro-, and nanostructures, designed to mimic cortical and cancellous bone, and facilitate fusion. 1,2



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.



#### **Pre-Op Images:**



(Sagittal, L2-3, L3-4, L4-5, L5-S1, L5-S1)

- No significant stenosis at L2-3
- Congenital spinal stenosis due to short pedicles
- Superimposed moderate to severe central stenosis at L3-4, L4-5 and L5-S1 due to hypertrophy of ligamentum flavum and facets

The first axial at L5-S1 shows the spinal canal at the level of the L5-S1 disc. However, the slice does not show the vascular anatomy at the level of the disc space due to the angle of the disc space. The second axial of L5-S1 shows the vascular anatomy at the level of the disc space with wide distance between left and right iliac vessels favorable for L5-S1 ATP.







(AP, flexion, extension)

- Calcification of aorta
- Retrolisthesis at L2-3 ad L3-4 with dynamic subluxation.
- Loss of disc height at L5-S1 with resulting neuroforaminal stenosis

### Intra-Op & Post-Op Images:









- Reduction of L2-3 and L3-4 spondylolisthesis achieved by ligamentotaxis.
- Disc height restoration and indirect foraminal decompression achieved at L5-S1.



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All views and opinions expressed by the surgeon are based on his/her own knowledge and experience.

Please refer to the instructions for use for a complete list of indications, contraindications, warnings and precautions.

1. SEM Report. 1/28/2019. ADAPTIV #103546250 2. VAL2016-043 Strut diameter summary rev 0. 11/20/2017.

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