Lateral Lumbar Interbody Fusion Using Teligen Camera System: A Surgical Technique

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Purpose:
Lateral lumbar interbody fusion (LLIF) is a minimally invasive (MIS) spine technique that accesses the spine via the retroperitoneal space, giving the surgeon access to the lateral lumbar spine to perform anterior column reconstruction/interbody fusion. We highlight the use of Teligen ™ (JnJMedTech) in performing LLIF.

Methods:
The technique is performed via a trans-psoas approach, traversing anterior to the lumbar plexus, and the operation presents unique technical challenges. The lateral decubitus position (direct lateral approach) and the prone position (prone trans-psoas approach) are both used regularly. We present the novel use of Teligen ™ (JnJMedTech) as an adjunct to performing lateral lumbar interbody fusion. Teligen ™ is an integrated technology platform that augments visualization using camera technology.

Results:
This video presents the case of a 77-year-old female with degenerative lumbar scoliosis complicated by neurogenic claudication and radiculopathy refractory to conservative treatment. A multi-level thoracolumbar deformity surgery was performed and the use of lateral lumbar interbody fusion with Teligen ™ assistance is highlighted.

Conclusion:
We have found the use of this technology to be helpful in the execution of this procedure by improving ergonomics and facilitating the visualization of key anatomic structures. These improvements result in more efficient movement throughout the procedure, reducing operative time and enabling the entire room to participate in the procedure. Furthermore, this technology does not change standard workflows and is easy to adopt.