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XLIF Workshop

ROME SPINE 2012
6-7 October
Interbody fusion may be a valid alternative to posterolateral fusion in the surgical treatment of low back pain.
• Theorically interbody fusion presents many biomechanical advantages than posterolateral fusion
References

• Circumpherential approach is recommended in the treatment of spinal deformity with insufficiency of anterior column

Interbody Fusion Approaches
Extreme Lateral Interbody (XLIF) Fusion

- Shorter procedure
- Less blood loss
- Faster ambulation
- Less rounding
- Shorter hospital stays
- Quicker return to normal activity
Why XLIF

- Device with wide contact surface and good anterior support
- Preserves anatomical structures (muscles, anterior and posterior longitudinal ligaments, facet joints)
Why XLIF

- Avoid direct manipulation of neural structures
- Increase volume of devices, including reduced risk for osteopenic bone
Limits

- Direct decompression is not possible
- The space at L5-S1 is not reach
- Requires a long "learning curve"
- Possible neuropraxia of the lumbar plexus
Indications

1. Vertebral instability as alternative to PLIF, TLIF and ALIF
2. Symptomatic degenerative discopathy (Pfirrmann 3-4 degree)
3. Failed back surgery syndrome with abundant peridural scar tissue
4. Scoliosis ???
Surgical Technique 1.
Surgical Technique 2.
Surgical Technique 3.
Preliminary reports (January 2009 - December 2012)

- 13 patients
- 17 levels
G.P. 53 yrs female
* L2-L3
* Degenerative instability
* Low-back pain
* Radicular pain (L3 nerve root)
* No responsive to conservative therapy
* Modic I
* Pfirrmann 3
* Pre-op VAS: 8 (v.n. 0-10)
post-operative

F.U. 6 months

VAS: 3 (v.n. 0-10)
S.C.N. 45 yrs male
* L4-L5
* Degenerative Disc Disease
* Low-back pain
* Radicular pain (L5 nerve root)
* No responsive to conservative th.
* Modic I-II
* Positive discography
* Pfirrmann 3-4
* Pre-op VAS: 9
Post-operative radiographs: stand alone device

Post-operative VAS: 2
C.S. 63 yrs female
- Degenerative Scoliosis
- Low-back pain
- Radicular pain
- No responsive to conservative therapy
- Xlif at multiple levels and Percutaneous screws and rods
Pre-op Side View
Pre-Op Cross Section
- W.T. 58 yrs male
  - * Degenerative Scoliosis
  - * Low-back pain
  - * Radicular pain
  - * No responsive to conservative therapy
- * Xlif at multiple levels and Percutaneous screws and rods
Pre-Op MRI Frontal
1mo Post-Op
7mo Post-Op
CONCLUSIONS

- Minimally Invasive Approach
- Less recovery time
- Early rehabilitation
- Clinical Improvement
- Specific and dedicated devices for extreme laterale approach
- Neurophysiologic monitoring
- Learning curve
CONCLUSIONS

PITFALLS & COMPLICATIONS

* Subsidence
* Loosening
* Infection

no personal cases
CONCLUSIONS

- WHEN STAND ALONE ?????

  * Only one level without segmental instability
  * Degenerative disc disease