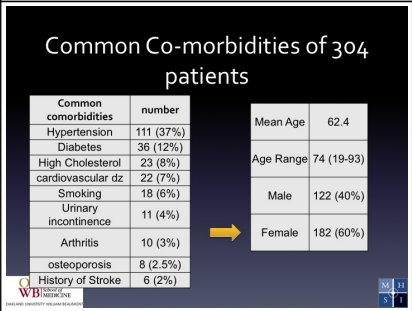
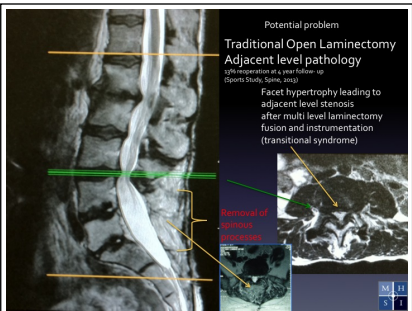


Presenting diagnosis was determined from clinical findings and radiographic (X-ray, MRI, CT-scan) evaluations pre-operatively. Outcomes were collected pre-operatively, and post-operatively at two weeks, and 3, 6, 12, 24 months, and annually 2-7 years (mean follow-up: 47 months). Complications and re-operations at the initial level of MITLIF and adjacent level (s) were followed. Fusion rates were assessed blinded and independently by radiograph.

VAS scores decreased significantly from 7.0 pre-operatively to 3.5 (p-value <0.05) at mean 47-month follow-up. ODI scores declined from 43.1 pre-operatively to 28.2 (p-value <0.05) at mean 47-month follow-up. SF-36 mental component scores (MCS) increased from 43.8 pre-operatively to 49.7 (p-value <0.05) at 47-month follow-up. SF-36 physical component scores (PCS) increased from 30.6 pre-operatively to 39.6 (p-value <0.05) at 47-month follow-up. Reoperation rate was 3.9% (n = 12) with adjacent level pathology requiring reoperation 2% (n= 6). Complications were low and fusion rates were greater than 95%.

This large prospectively collected outcomes study shows long-term statistically significant improvement after MITLIF. MITLIF resulted in a high rate of spinal fusion and very low rate of interbody fusion failure and/or adjacent segment disease requiring re-operation while reducing post-operative complications.



- to present a large series of patients treated for a variety of spinal disorders causing debilitating refractory lower back pain.
- to illustrate important clinical points learned from a critical evaluation of long term prospectively collected outcomes in patients surgically treatment for chronic low back pain.
- to show the benefits of MITLIF in providing cost effective treatment of chronic low back pain.

Minimally Invasive Spinal Fusion:
Techniques and Operative Nuances,
Editors, Perez-Cruet MJ, Pimenta L,
Beisse R, Kim D. Quality Medical
Publishing, Inc. St. Louis, MO 2011

