

Is a far lateral lumbar microdiscectomy an effective approach for far lateral herniations?

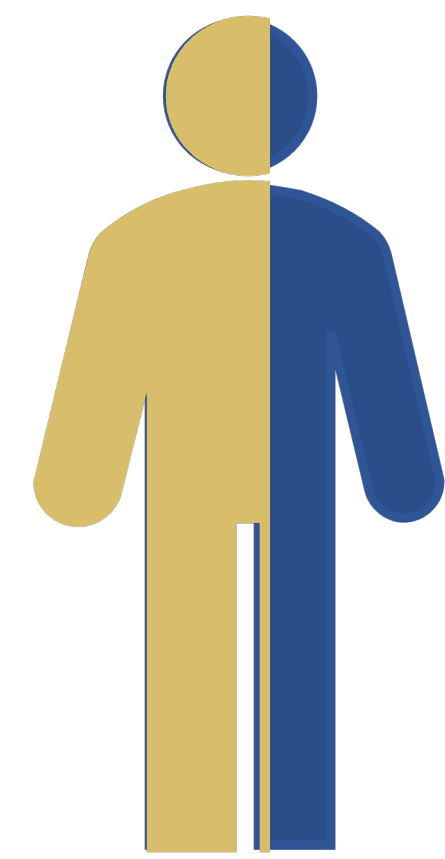


GREG MALHAM
BSc MBChB FRACS NEUROSURGEON
EH2022- 987

Farouk Arnaout, Nigel Munday, Charlie R. Faulks, Gregory M Malham, Dean T Biddau

Cross-sectional Study

- N=41
- Mean Age: 58±13.4
- 56% were male



Surgical Outcomes

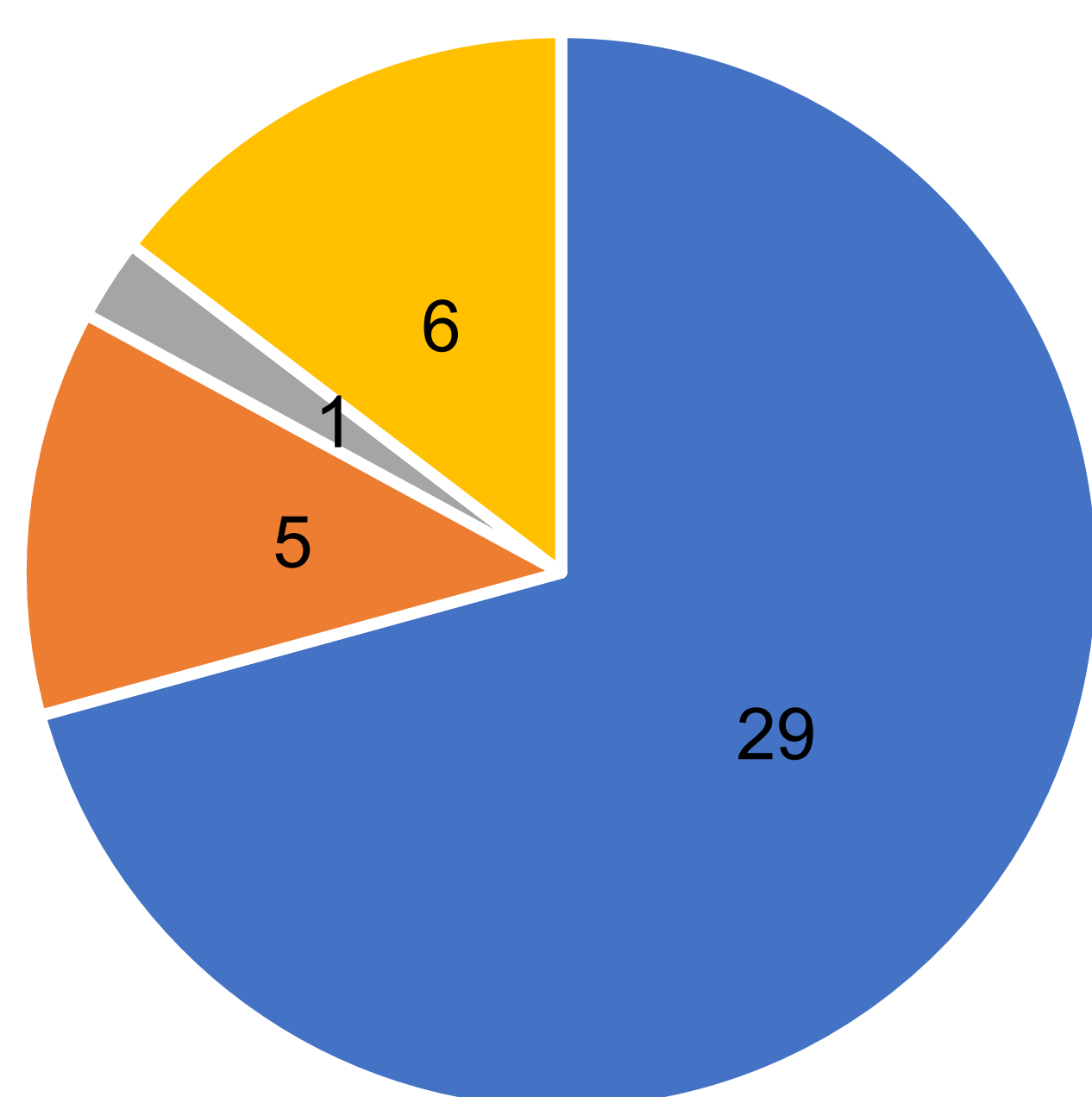
- Mean Operation Time = 1.28±0.28 hr
- Mean post-op length of stay = 3.7±2.0 d

Patient-reported Outcome Measures

- ↓ VAS Back by 2.0 points
- ↓ VAS Leg by 5.2 points
- ↓ ODI by 19.5 points
- ↑ SF-12 Physical by 11.9 points
- ↑ SF-12 Mental by 13.2 points

* $p < 0.001$ for all outcomes

Odom's Criteria



■ Excellent ■ Good ■ Fair ■ Poor

Background Context:

Far lateral disc herniations (FLDH) comprise only 7% of lumbar disc herniations, however patients experience excruciating radicular pain due to the compression of the dorsal root ganglion as well as the exiting nerve root. Additionally, surgical treatment of FLDHs is much more challenging in comparison to the more common posterolateral herniations, due to inherent difficulties in accessing the far lateral compartment.

Numerous surgical approaches have been described and investigated in the literature all aiming to balance out the need for adequate exposure while avoiding compromise of spinal stability. Many of these utilise the common midline approach that most surgeons are familiar with.

AIM

We aim to review the clinical outcomes of patients that have undergone a far-lateral microdiscectomy (FLMD) via a paramedian Wiltse approach over a twelve-year period across a single site with an experienced surgical team. This surgical method allows direct access to the extraforaminal disc pathology without compromising vertebral stability, as opposed to the more familiar midline approach.

Study Design and Method

Single-centre, retrospective, cross-sectional data audit of consecutive patients undergoing a far lateral lumbar microdiscectomy via a Wiltse approach from July 2010 to April 2022.

Patient-reported outcome measures (PROMs), comprising of Back & Leg VAS, ODI and SF-12 scores were evaluated preoperatively and at 6 weeks postoperatively. Mean operation time was also calculated as a measure of intraoperative efficiency. Other outcomes measures that were assessed include post-operative hospital length of stay as well as Odom's criteria.

Results:

The total number of far lateral microdiscectomies undertaken was 41, 1 of which was a repeat microdiscectomy. The mean patient age was 58±13.4 years, and 23 (56%) were male. Mean operation time was 1.28±0.28 hours and mean post-operative hospital length of stay was 3.7±2.0 days. All PROMs (VAS, ODI and SF-12) improved significantly from the pre-operative consultation to the 6-week post-operative follow-up.

Using Odom's criteria to evaluate clinical outcomes; 29 (70.7%) of the undertaken operations scored excellent, 5 (12.2%) were good, 1 (2.4%) was fair and 6 (14.6%) were poor.

5 of the 41 patients required a post-discectomy fusion procedure at a range of 2-3 years later.

Key findings:

FLMD via the Wiltse technique for lumbar FLDH is a suitable surgical technique that allows more direct exposure to the disc pathology and provides acceptable patient outcomes. There was a significant improvement in PROMs (VAS score for back pain and leg pain, ODI, SF-12 mental and physical components) for patients undergoing this procedure.