CERVICAL SPINE RESEARCH SOCIETY
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# Unilateral laminoplasty with lateral mass screw fixation for less invasive decompression of the cervical spine: a prospective clinical study

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**Cervical Spine Research Society - Europe**

# Disclosures

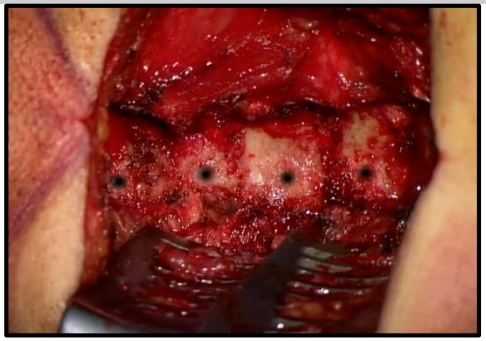
- No Disclosures

# Introduction & Background

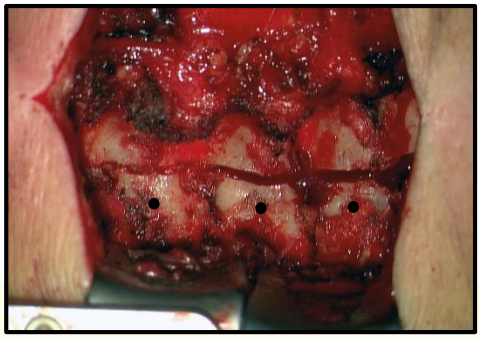
- mDCM = most common progredient cervical disease of older people
- Looking for a less invasive posterior cervical approach
- Evaluation: prospective case-control-study

**Surgical technique:**

1. Unilateral approach

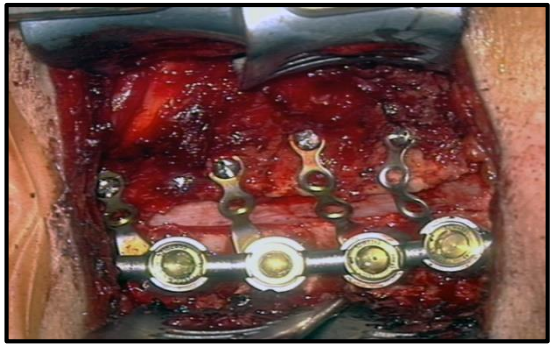


2. Drillholes for ML-screws



3. Laminotomy (Drill, Mini-Craniotom)

4. Breaking the laminae



5. Screw-rod-system, unilateral fusion



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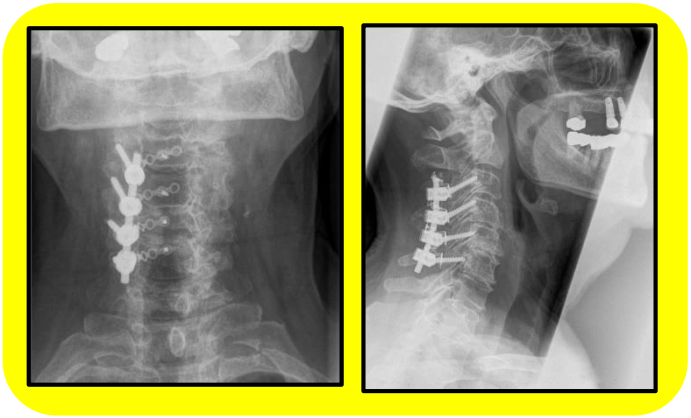
# Materials and Methods

- Prospective study
- Inclusion: 46 pat. wtth mDCM, 22m, 24f
- mJOA, NDI, EQ5D, VAS neck/arm
- Surgical technique, duration of surgery, intraoperative bloodloss, intraoperative x-ray
- Radiological analysis: SVA C1/C2-C7, Cobb C2-C7 and C0/C1-C2, C7-Slope
- 2013-2017, follow up: preop, postop, 3mo, 12mo



**Two groups:**

1. Laminoplasty with unilateral fusion (LP) n = 23
2. Laminektomy with posterior Fusion (LC) n = 23

# Results

## No significant difference between the groups:

- Age, gender
- Intraoperative x ray, bloodloss
- PROMs and mJOA

## Significant difference between the groups:

- Time of surgery
- Length of hospital stay

| | LP | LC |
|---|---|---|
| **Age** | 68 | 68 |
| **Bloodloss** | <120 ml | <120ml |
| **intraop X-ray** | 0,2 min | 0,2 min |
| **OP-time** | 89 min | 139 min |
| **Length of stay** | 9 days | 12 days |
| **mJOA preop** | 12,5 | 12,5 |
| **mJOA postop** | 16 | 16 |
| **NDI preop** | 32 | 32 |
| **NDI postop** | 15 | 21 |

Averague values for both groups

## Conclusion/discussion

Unilateral laminoplasty and fixation:

- Significant reduction of surgery time
- Significant reduction of length of hospital stay
- Biomechancal theory: semirigid fusion (less adjacent level disease?)

- Clinical and radiological no difference between unilateral laminoplasty + stabilization and laminectomy + fusion

Thank you !

# 36th ANNUAL **MEETING**

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