CERVICAL SPINE RESEARCH SOCIETY

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Degenerative cervical myelopathy: Anterior or Posterior approach?

Proposal of an algorithm for decision making

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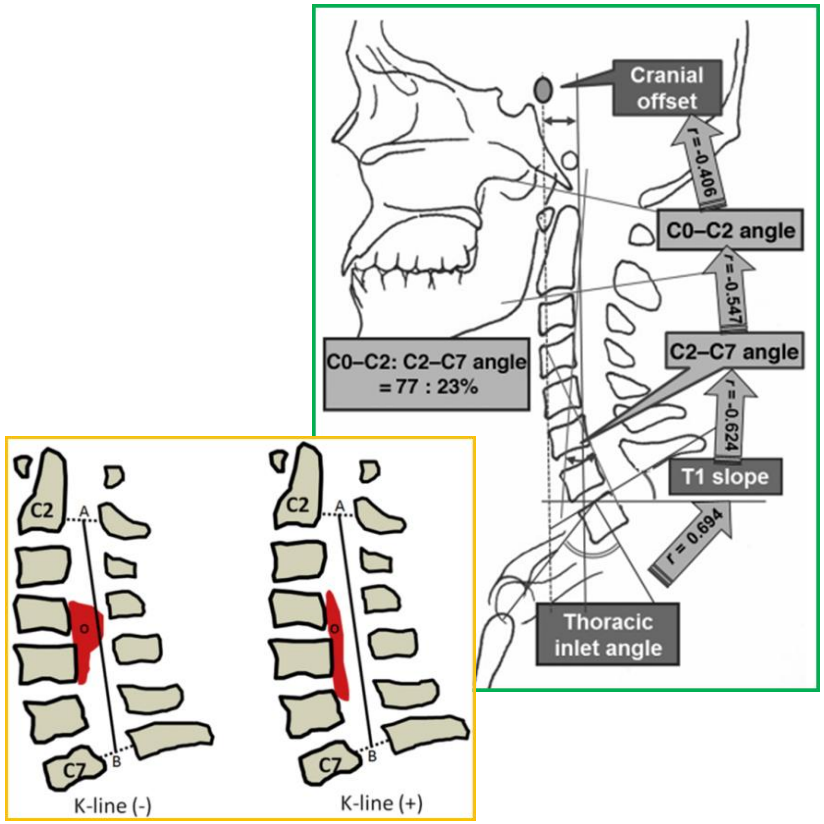
Disclosures

- **The Authors declare they have nothing to disclose**

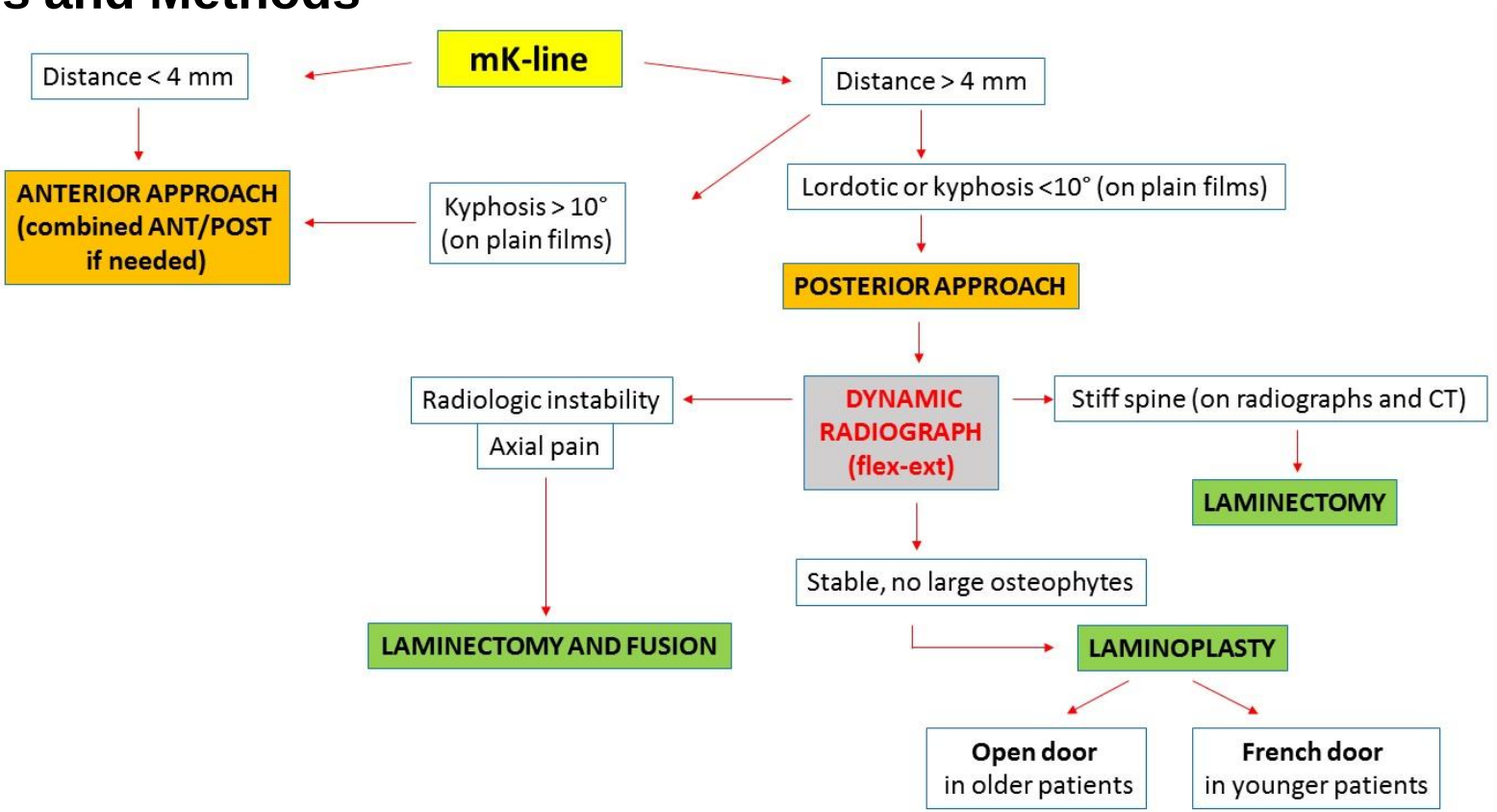
Introduction & Background

- Degenerative cervical myelopathy (**DCM**) represents a common clinical condition. However, several controversies persist concerning the correct surgical indication, selection of the approach and need for fusion

- The aim of this study was to provide a helpful decisional tool, in order to determine whether anterior, posterior or combined approach is more appropriate for a given DCM patient



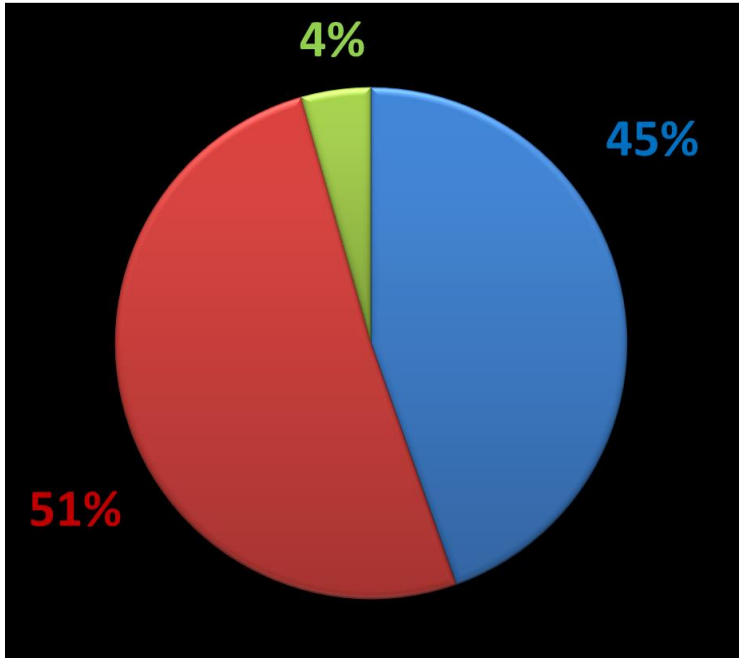
Materials and Methods



- Decisional **algorithm** based on current literature and evidence, in particular **modified K-line (on MRI), sagittal balance and measurement of cervical lordosis, dynamic radiographs and assessment of cervical spine stability**

Results

- 92 DCM patients were operated in our Institution between 2018 and 2019 (27 female and 65 male patients). The surgical approach was determined according to our algorithm



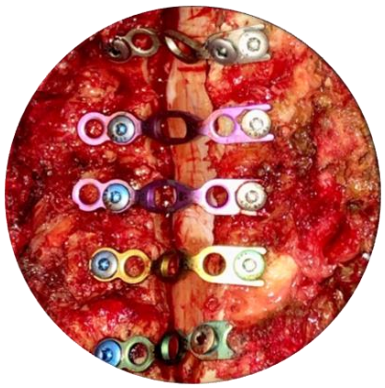
ANTERIOR - 41 pts (45%):
34 ACDF, 7 ACCF

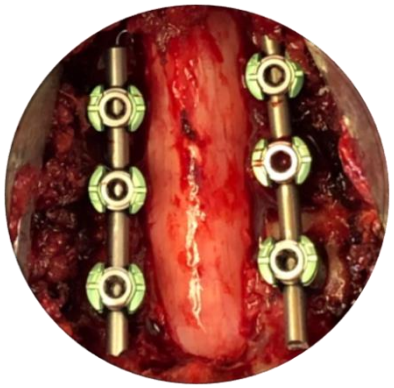
POSTERIOR - 47 pts (51%):
21 laminectomy, 12 laminoplasty, 14 laminectomy and fusion

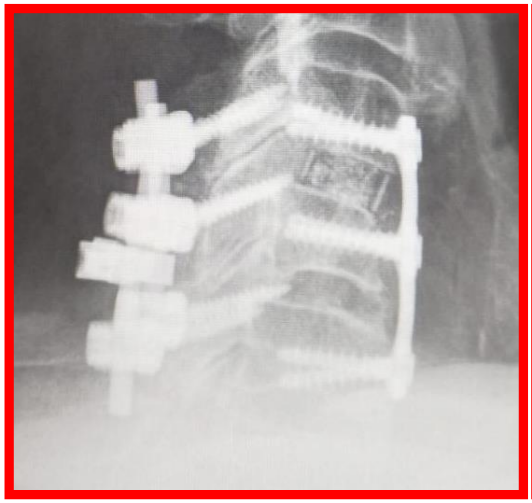
COMBINED – 4 patients

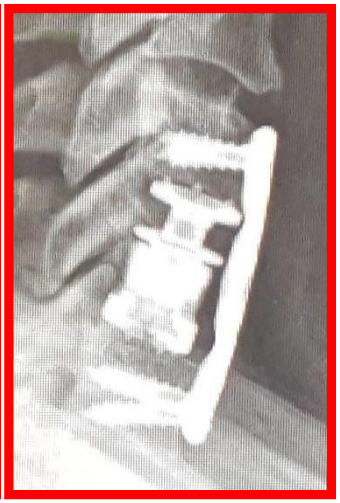
Conclusion/discussion

- The selection of the type of approach for DCM is still a matter of debate. Several studies have been published, generally asserting that the decision should be based on **age**, **comorbidities** and general conditions, **neurological status**, number of **levels** involved and radiological characteristics of cord compression.
- However, no clear rules exist and the selection mainly depends on personal experience.
- We elaborated a flow chart for decision making, which proved to be useful in terms of diagnostics, preoperative planning, choice of the approach and technique.









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