Background:
Cervical decompression and fusion is the standard procedure used for treating patients with cervical myelopathy. Posterior cervical laminectomy and instrumentation or laminoplasty and/ or in association with anterior approach or anterior alone is a valid option. Currently no unique strategy is defined for multilevel cervical myelopathy.
Research question:
In this study, we investigated wich factors to consider when choosing the best surgical approach in myelopathy treatment (anterior, posterior or combined), such as in particular among the clinical or radiographic criteria of equilibrium in the sagittal plane.
Design:
Retrospective , observational study
Methods:
30 patients with cervical myelopathy were evaluated preoperatively and postoperatively with Nurick's grading, mJOA scale for neurological function and with ODI. The results of different approaches in terms of radiological and functional outcome are prospectively evaluated too. Patient with mJOA more than 11 and Nurick's grade less than 5 were treated by anterior approach only. Patients with upper values were treated by double approach.
Results
Six (20%) patients presented with mild myelopathy, sixteen (53,3 %) with moderate and eight (26,7 %) with severe disease. Improvements in functional, and clinical and radiografic evaluation were reported.
Discussion
In cervical myelopathy, the level of pathology, balance of the cervical spine, clinical conditions and also surgeon's expertise, influence surgical strategy.
Patients with mild and moderate myelopathy presented improvements in clinical and functional valuation through anterior approach. Patients with severe disease treated by combined approach showed clinical and functional improvements, even if has to be considered the use of more extensive rehabilitation program in these patients. The use of different assessment scales may be useful for surgical choice.
The radiological sagittal balance must be considered.