We read with great interest the editorial by Goel “Atlantoaxial and subaxial cervical spinal fixation: Can it revolutionize surgical treatment of cervical myelopathy related to ossified posterior longitudinal ligament?”[1]

The question that arises after reading this exquisite synthesis of ever-increasing insight into the workings of the craniovertebral junction and subaxial cervical spine, that arises out of almost four decades of experience and does not seem to stop delivering ever more innovative concepts, is whether we might actually get to the stage where a simple atlantoaxial fixation done in timely fashion could alter or even altogether stop the consequences of spondylosis of the entire cervical spine in many affected patients.

The author, known for his tendency to view established problems from a different angle of view as that commonly adopted and thus frequently gaining unprecedented insights, takes us on a journey in the editorial that spans from the first findings of spinal fixation as the sole treatment for spinal stenosis up to the statement that the atlantoaxial joint should be included in the multi-spinal level fixation construct in all cases of cervical ossified posterior longitudinal ligament (OPLL) and probably cervical spondylosis in general, even when it involves only lower or mid-cervical levels.

What had led to this insight was the finding that “occult” atlantoaxial instability, classified by the author into type B and C, or type 2 and 3, is probably much more frequently present than the only type A or 1, which results more immediately visible on common radiological studies.

Through the concept of “vertical instability”, developed over the years, and the effects of atlantoaxial instability on the entire cervical anatomy as in short neck, torticollis or Klippel-Feil malformations, the author seems to point toward an ever increasingly focused responsibility of the atlantoaxial joints as the main originator and perpetrator of cervical spondylosis and OPLL.

Could it be possible that this highly crucial joint, which is the atlantoaxial articulation, is therefore not just responsible for pathology in its immediate vicinity, like basilar invagination, as we had the chance to realize first hand and as is becoming increasingly diffuse knowledge,[2] but might it also be that the lost stability of this joint can have even distant repercussions with such dramatic ramifications as those that a pathology like OPLL carries with itself not only in terms of pathological burden but also in terms of being an exquisite surgical challenge?

If the author continues to demonstrate that atlantoaxial instability, in particular type B or C, is an entirely underrecognized phenomenon in cervical spondylosis and delivers us with the tools and protocols to recognize and treat the problem in a timely fashion, than this could truly revolutionize the entire surgical approach to the cervical spine shifting it most of all from anterior to posterior[3,4] but also relieving it of the burden and risks of having to perform cumbersome decompressions.

Will atlantoaxial fixation thus potentially become an increasingly performed operation? And if yes, how will the loss of range of movement affect the rest of the spine, especially in cases where it will have to be associated with subaxial cervical fusion and how will this relate to sagittal balance and possible clinical repercussions?[5]

All these are questions that still need to be answered and we look forward to learn more from the elaborations of the author on this challenging topic.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

Francesco Cacciola, Laura Lippa
Department of Neurosurgery, Università degli Studi di Siena, Policlinico Santa Maria alle Scotte, 53100 Siena, Italy
E-mail: francesco.cacciola@gmail.com
REFERENCES

1. Goel A. Atlantoaxial and subaxial cervical spinal fixation: Can it revolutionize surgical treatment of cervical myelopathy related to ossified posterior longitudinal ligament? J Craniovertebr Junction Spine 2017;8:5-8.

2. Cacciola F, Patel V, Boszczyk B. Novel use of bone cement to aid atlanto-axial distraction in the treatment of basilar invagination: A case report and technical note. Clin Neurol Neurosurg 2013;115:787-9.

3. Goel A, Cacciola F. Anterior approaches for multilevel cervical spondylosis. In: Quinones-Hinjosa A, editor. Schmidek and Sweet’s Operative Neurosurgical Techniques. 6th ed. Philadelphia: Elsevier Saunders; 2012. p. 1789-800.

4. Cacciola F, Di Lorenzo N. Lateral mass screw fixation of the subaxial cervical spine. In: Menchetti PP, editor. Cervical Spine: Minimally Invasive and Open Surgery. Switzerland: Springer International Publishing; 2016. p. 151-8.

5. Lippa L, Lippa L, Cacciola F. Loss of cervical lordosis: What is the prognosis? J Craniovertebr Junction Spine 2017;8:9-14.