Letter to the Editor concerning “Systematic review of the effect of dynamic fixation systems compared with rigid fixation in the anterior cervical spine” by Campos RR, Botelho RV (Eur Spine J. 2014 Feb; 23(2):298–304)

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We read, “Systematic review of the effect of dynamic fixation systems compared with rigid fixation in the anterior cervical spine” by Campos RR, Botelho RV [1], who should be congratulated for their literature review; nevertheless, we would like to point out several issues.

The worse fear about using dynamic plates would be the clinical impact of lordosis loss; as shown by Ghahreman and colleagues who analyzed ABC use [2], even though there is a partial loss (around 50 %) of gained lordosis after surgery, there is still a global lordotic gain, which may explain why changes in cervical angles do not affect clinical outcome in the study.

The second fear is about adjacent segment irritation and subsequent early degeneration (which may just happen because of the surgery itself) as with axial dynamic plates there may be plate invasion of the disc space (not any longer with modern designs), which seems to be caused mainly because of surgical technique, and as such can be prevented when using the DOC plate by turning it [3], and when using the ABC the screws should be placed as far as possible from the adjacent level.

Once addressed these two issues, the main criticism about the review is the global approach of considering all types of dynamic plates as working identically: no distinction is made among several types of dynamic plates, as they are different not only from static plates but also among them, depending on the dynamism based on rotational or

axial (uni-DOC- or bilateral-ABC)—the latter also has a combined dynamism. This is important because of the three RCT studies for two level ACDF, while one study shows no difference in clinical outcome or fusion speed of static (CSLP) against rotational (Atlantis) or unidirectional axial-angular dynamic plate (Premier), others favor dynamic both with C-TEK [4] (better clinical outcomes) and ABC [2] (faster fusion, including not only two but also at one-level); further more, even dynamic plates obtain same or superior fusion results with fibular allograft compared to with autologous crest plus static [4].

Finally, the best way of assessing usefulness may be to examine complications—particularly those requiring reoperation—decrease, which should be looked at more carefully as this could be one of the mainstones for advising the use of dynamic plates; translational plates seem to decrease the rate of pseudoarthroses [3, 4].

Compliance with ethical standards

Conflict of interest None.

References

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