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Editorial

Making a Good Surgery Even Better

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See the article "Biomechanics of Circumferential Cervical Fixation Using Posterior Facet Cages: A Cadaveric Study" via https://doi.org/10.14245/ns.2040552.276.

Anterior cervical discectomy and fusion (ACDF) is one of the most common procedures performed by spine surgeons. Used to treat a variety of conditions resulting in spinal canal stenosis, nerve compression, and structural insufficiency of the intervertebral disc, ACDF has overall high success was low complication rates. Typically performed with either bone graft or intervertebral synthetic cages placed under distraction to replace the removed disc and restore disc height, success rates for fusion generally correlate with a number of levels being fused. The more levels involved, the lower fusion rates are.[1] Anterior cervical plating has helped with increasing fusion rates[2] however has also been considered a potential risk for increasing postoperative dysphagia.[3]

Posterior cervical decompression and fusion is an alternative approach to addressing cervical stenosis especially useful at multiple levels. Stabilization is achieved by utilizing lateral mass screws and rods, and also has an overall good success rate and low complication profile. Though distraction can be applied, such force is applied posteriorly can sometimes result in kyphosis.

Recently posterior cervical facet cages have been introduced as a way of achieving distraction from a posterior approach for decompression of the neural foramina with more neutral distraction forces aiming to mimic distraction from an anterior approach. Such devices can be useful in certain settings for circumferential spinal reconstruction however formal comparison data is generally lacking.

The authors here present a cadaveric study comparing 3-level ACDF with plating and posterior cervical facet cages to a 3-level ACDF with plating but without posterior cervical facet cages and 3-level ACDF with posterior cervical facet cages without plating.[4] After biomechanical testing, they found that the addition of posterior cervical facet cages did not statistically significantly reduce range of motion, but that the addition of these facet cages allows for similar degrees of stiffness without an anterior plate.

With the introduction of new technologies and devices, it is very important to understand what benefit they confer regardless of theoretical advantages there may be in design. Posterior facet cages are still in their infancy with regards to understanding what they can be used for and the advantages that they may have. Currently, it may be difficult to better an already successful procedure such as ACDF, but excepting the status quo is the enemy of innovation and progress.

CONFLICT OF INTEREST

The author has nothing to disclose.

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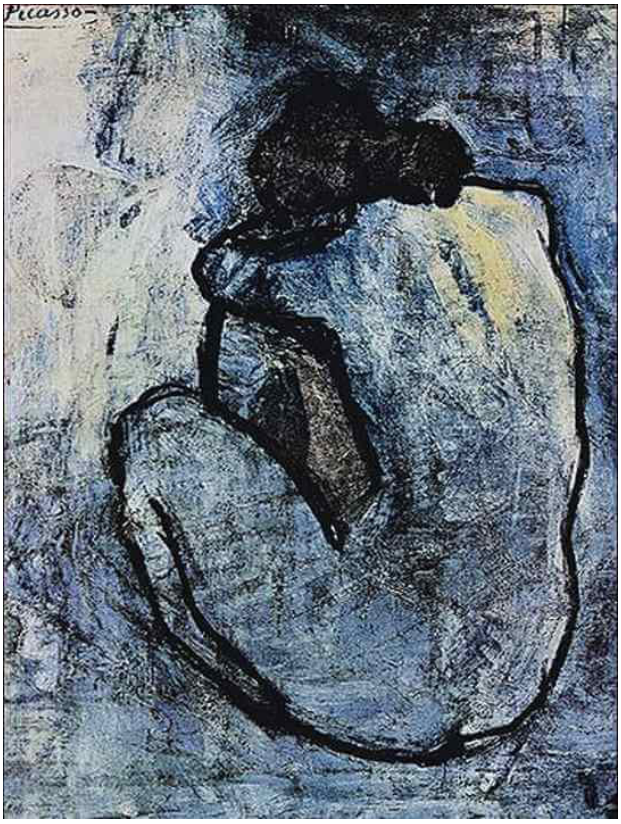

Title: Blue Nude
Artist: Pablo Picasso
Year: 1902

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