

## **Fusion Or Mobility Preservation: Which One To Choose?**

**Mehmet Zileli**

*Ege University Department of Neurosurgery, Izmir, Turkey*

Mobility preserving surgeries (MPS) claim fusion surgery (which was a classic for years) must be replaced with MPS. There are many types such as (1)Total disc replacement, (2)Nucleus replacement, (3)Interspinous distractors, (4)Posterior dynamic instruments, (5)Facet replacement.

MPS need new implants and approaches, some of which may have greater risks and complications. Those new implants are expensive. Industry campaigns/supports are shadowing the real results of MPS techniques. The purpose of the MPS is to preserve motion and so diminish the adjacent level degeneration. In this way, one problem of fusion will be prevented.

However, there are many questions to be answered: Do they really avoid the adjacent level degeneration, and how much? Does HA coated screws really prevent metal fatigue? Why they prevent rotation, not flexion-extension? Which dynamic implant is better? Heterogenous group, most are new? Which patient and with which indications?

In general, spinal fusion is still a "Gold Standard" in lumbar degenerative disc surgery. In a well selected patient it gives an effective and continuous result, it has a proven technique with long term results. There are two critics for spinal fusion: (1)Nonunion and pseudoarthrosis is possible, but clinically not significant in every case. (2)Adjacent segment degeneration may happen, but clinical importance is questioned.

On conclusion, mobility preservation surgeries are a new advancement in degenerative spine disorders. There are many techniques/implants coming to the market every day. The time will show us which is better. Ther value has not been justified with "Evidence Based Medicine". Even its main claim "reducing the adjacent level disease" is not justified. They need expensive implants.