Marek Szpalski

Comments on: Dislocations with intervertebral disc prosthesis: two case reports. S. Aunoble, P. Donkersloot, JC Le Huec

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This is a highly interesting paper as it very probably constitutes the avant-garde of papers describing the complications of artificial disc replacements. Artificial discs are currently “trendy” in spine surgery, and wide general media coverage has encouraged this view. It is a “fashionable” procedure and thus represents an efficient marketing tool for some surgeons who have adopted it indiscriminately. Helped by fallacious comparisons with the revolutions of total hip and knee replacement, and efficient company marketing, disc replacement is being quite widely adopted in Europe. Eventually it is likely to become a patient-driven market.

However, this adoption has taken place without scientific evidence, clearly agreed indications or true long-term follow-up. The sole concept of “motion preservation” seems to have been sufficient to warrant adoption of the method. De Kleuver et al. [1] have shown this lack of scientific evidence well in a thorough literature review and they conclude that artificial discs should be considered as an experimental device. The FDA in the US also considers artificial discs as an investigational device. Two controlled studies are ongoing in the US (where uncontrolled use is prohibited in the meantime) and will maybe provide more evidence.

While peripheral joint replacement mimics the function of the original joint relatively well, this is far from being the case in the spine – as witnessed by the huge array of different principles of function and designs proposed for disc arthroplasty [2]. The conception of a disc replacement

in such an anatomic location is a complex challenge. The present inability to reproduce the motion and visco-elastic function in a single device results in a partial reproduction of function, making it more arduous for a device to take all possible constraints into account and resist them.

The high rate of complications and reoperations has even been reported by proponents of the method who have experience with the procedure [3]. Now that many less experienced surgeons have adopted the method, the rate of severe complications is likely to increase dramatically. The severity of these complications is further increased by the complexity of revision surgery in such cases.

An aggravating factor is the lack of precision concerning the indications, as most published data do not give adequate clinical description of the patient samples [2]. We should be careful not to replace vague indications for fusion, where some evidence exists, with even less precise indications for arthroplasty.

References

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M. Szpalski (✉)
Department of Orthopaedic Surgery,
Hôpitaux Iris Sud/Molière Longchamp,
142 rue Marconi, 1190 Brussels, Belgium
e-mail: mszp@win.be