K. P. Schulitz

Comment on “Evaluation of standard nucleotomy after Love for lumbar disc herniation: results of follow-up studies after more than 10 years,” by Y. Saruhashi et al.

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Seventy-six patients with disc herniation underwent, from 1979 to 1988, standard nucleotomy after Love. In 54 cases long-term results from at least 10 years postoperatively were evaluated by means of the MacNab Classification (1971) and JOA score (1986), but not closer-termed questionnaires, for employment status, satisfaction and “disability of lumbar spine mobility.” Because of the retrospective nature of completed JOA scores, no real baseline data are available. The authors hoped that their paper would serve as a basis for comparing the value of standard nucleotomy and new techniques.

Long-term articles are difficult to compare because of the different methods used and because of the lack of initial outcome (Findlay et al. 1998). I would question how appropriate the tools for measuring the effectiveness of nucleotomy – not only in this paper – are for evaluating a nucleotomy-related initial or long-term outcome. The Love operation, like other methods, treats only radicular pain but does not negatively influence low back pain. FBSS has another dimension and should not be included under this subject. Most functional outcome measurements and other authors' personal classifications are predominantly built on back-related conditions. Scores like the RDQ (1983), ODI (1981) and their adaptations, JOA score (1986) and others mirror a condition-specific

health status (pain-related interference with activities) that has many facets:

- The data measured relate to disc degeneration and instability that exist before the operation and have therefore nothing to do with it; they develop independent of the nucleotomy. The data might also change with time as an expression of the natural history of aging, progressing degenerative process and/or pain affection.
- If these data get much worse over time (which is difficult to ascertain because of a lack of baseline and initial data, Findlay et al., 1998), we should blame the course of fate rather than the disc operation.
- Long-term data reflect the condition of a special (disc-operated) population. If they deviate from the average population, we should investigate the reason, which is surely not a disability due to nucleotomy. Therefore, I believe the best decision is to measure the value of nerve-root decompression 1–2 years after the operation, when the healing process is finished.

Beyond that, traditional surgical outcome measures of a single rating scale (excellent, good, fair, poor) like MacNab's classification, other authors' personal evaluation scores (Weber's patient's statement, 1983,

K. P. Schulitz (✉)
Department of Orthopaedic Surgery,
Heinrich Heine University,
Moorenstrasse 5,
40225 Düsseldorf, Germany
e-mail: kpschulitz@gmx.net

included) and various un-validated questionnaires are no longer sufficient (Deyo et al. 1998). These tools are heterogeneously composed or combine multiple unrelated dimensions of outcome so that a questionable interpretation and different conclusions are possible (Deyo et al. 1998; Howe and Frymoyer 1985).

If you asked me if I had a proposal about how to manage this problem, I would answer that I do not. We know a series of reliable

predictors of surgery. I believe that some of these, besides others, should be included: symptoms of leg (sciatica) and back pain (VAS; MPQ), satisfaction, work status, preoperative chronic or recurrent pain, disability pension, and psychometric test. More appropriate would be a modified Swiss Spinal Stenosis (SSS) Questionnaire (1996) and Oxford Claudication Score (OCS) (1998). "Items in a disease-specific measure should assess only those aspects of health that tend to be affected by the disease" or operation, according to Kopec (2000). I believe that these problems merit investigation.

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