

Disc Replacement, Fusion and Rehabilitation for Back Pain

At the recent meeting of the International Lumbar Spine Society in Porto, Portugal, a series of papers were presented regarding disc replacement, fusion and rehabilitation in the treatment of low back pain.

The first was a paper from a busy spinal unit in the United States of America analyzing their previous 200 cases to see if they could apply the indications for disc replacement in that group of patients. In only 2% of the cases did they fulfill the indications for disc replacement.

The question raised is whether the enthusiasm in some centres for disc replacement is justified and whether the indications are being "stretched".

The second paper had a prospective series of fusions, comparing them with disc replacements, and found that the outcomes at six months were similar, but that disc replacement is a significant advantage over the safer procedure of fusion.

A Swedish lumbar spine study was presented indicating that three different forms of spinal fusion obtained a good outcome and were superior to the more traditional physiotherapy approach in patients with chronic low back pain. An interesting sideline of that study is that the type of fusion does not influence the outcome, nor does the surgeon performing the procedure.

The next paper presented the results of disc replacement at a major centre. This showed the results were similar to fusion. A surprising result was that the disc replacements had obtained better results for those with the least amount of movement on flexion / extension studies.

An Oxford study which randomly allocated 349 candidates for spinal fusion, to immediate surgery or intensive rehabilitation over a three week program

based on behavioural principles, was also presented.

The conclusion was that there was no clear evidence that immediate surgery is any more beneficial than rehabilitation in candidates with chronic low back pain.

I found the apparently diverse results of these papers perplexing. Often at such meetings there is a consensus view of what should be done and whether there should be any change of treatment, but I don't think this occurred at this meeting. The expressions of the delegates leaving the session was one of thoughtfulness rather than enthusiasm for a new procedure or treatment.

Bill Ryan

Huang RC et al., *The prevalence of contraindications to total disc replacement in a cohort of lumbar surgical patients*

Bae H et al., *Prodisc artificial total lumbar disc replacement : Introduction and early results from USA clinical trial*

Fritzell P et al.,

Spinal Fusion vs Rehabilitation

A recent research study presented by Dr Jeremy Fairbank et al., during Spine Week 2004 in Porto, Portugal concluded that spinal fusion was no better than a rehabilitation program in relieving chronic back pain.

The study which was a large multicentre randomized controlled trial was carried out in Great Britain.

Three hundred and forty-nine patients who were potential candidates for spinal fusion were randomly assigned to immediate surgery or an intensive three week rehabilitation program based on cognitive behavioural principles.

The patients were aged between 18 and 55 and had chronic back pain for greater than twelve months. Of these patients, 11% had pain related to spondylolisthesis and 8% had had previous surgery. Patients were assessed at four time periods: at the time of the randomization and at 6, 12 and

24 months after treatment. The primary outcome measures were the Oswestry Disability Questionnaire and the Shuttle Walking Test.

Although both groups made moderate progress over the course of the study, the authors concluded that there were no statistically or clinically significant differences between the two groups.

Considering that fusion surgery was costed at about twice the expense of rehabilitation over the two year follow-up period, and the potential risks of surgery, the authors concluded that cognitive-behaviourally based rehabilitation may well be an effective alternative to spinal surgery.

Ian McKenzie

Fairbank J et al., *A randomized controlled trial to compare surgical stabilization of the lumbar spine versus an intensive rehabilitation program on outcome in patients with chronic low back pain*, presented at the annual meeting of the International Society for the Study of the Lumbar Spine, Porto, Portugal, 2004 and Winner of "Best Paper" Award; as yet unpublished.

**Don't Forget
Date for your Diary**

Pinot by the Pool

*Wine Tasting hosted by
Bill Ryan*

Wednesday

29 September 2004

at 6 pm

Guest Speaker

Dr Lennel Lutchman

**Spinal Research Fellow
Cambridge UK**

**"Lumbosacral
Spondylolisthesis"**

For details please call:
Narelle Nolan 38315538 or email
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**Gregory Terrace Rehabilitation
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Conference Calendar

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World Institute of Pain

*Pain : Advances in Research
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21 - 25 September 2004
Barcelona, Spain

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*Psychosocial Hazards, Stress &
Musculoskeletal Disorders (MSDs)*

26 October 2004
Crowne Plaza Darling Harbour
Sydney

PPL Education Services

Contact: Sally Lane
5/69 Florence Street Hornsby 2077
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5th Interdisciplinary World
Congress of Low Back &
Pelvic Pain :
An Integrated Approach

10 - 14 November 2004
Melbourne Australia

Craig Bosworth
PO Box 1165 St Kilda SV 3182
Phone: 06 95343943
Email: acadie@opsmc.com.au

*International Society for the Study
of the Lumbar Spine Instructional
Course : Controversies in
Diagnosis & Treatment of Lumbar
Spinal Conditions*

27 - 28 March 2005
Nairobi Kenya

Shirley Fitzgerald
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32nd Annual Meeting of the
International Society for the
Study of the Lumbar Spine

10 - 14 May 2005
New York

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*Occupational & Post-traumatic
Pain Syndromes*

18 - 19 August 2005
Melbourne Australia

Official Satellite Symposium of
11th World Congress on Pain

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www.med.monash.edu.au/psychmed/staff/george.htm

11th World Congress on Pain

21 - 26 August 2005
Sydney Australia

International Association for the
Study of Pain

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Research Update

*The Use of Muscle Relaxant
Medications in Acute Low Back
Pain*

Bernstein, E; Carey, TS; Garrett, JM
Spine (2004) 29 (12) 1346-1351

*Weather Conditions and Spinal
Patients* Glaser, JA; Keffala, V;
Spratt, K. Spine (2004) 29 (12) 1369-
1373

*High Fear-Avoiders of Physical
Activity Benefit from an Exercise
Program for Patients with Back
Pain*

Moffett, JAK; Carr, J; Howarth, E.
Spine
(2004) 29 (11) 1167-1172

*Psychiatric Morbidity in Patients
With Chronic Whiplash-Associated
Disorder* Kivioja, J; Sjaln, M;
Lindgren, U. Spine (2004) 29 (11)
1235-1239

*The Sensitivity and Specificity of
Functional Capacity Evaluations
in Determining Maximal Effort: A
Randomized Trial* Lemstra, M;
Olszynski, WP; Enright, W. Spine
(2004) 29 (9) 953-959

*Primary Care Involvement and
Outcomes of Care in Patients with
a Workers' Compensation Claim
for Back Pain* Atlas, SJ; Wasiak,
R; vandenAncker, M; Webster, B;
Pransky, G. Spine (2004) 29 (9) 1041-
1048

*Degenerative Lumbar
Spondylolisthesis With Spinal
Stenosis: A Prospective Long-
Term Study Comparing Fusion
and Pseudarthrosis* Kornblum,
MB; Fischgrund, JS; Herkowitz, HN;
Abraham, DA; Berkower, DL; Ditkoff,
JS. Spine (2004) 29 (7) 726-732

*The Psychological Assessment
of Candidates for Spinal Cord
Stimulation for Chronic Pain
Management* Diego Beltrutti; Aldo
Lamberto; Giancarlo Barolat; Stephen
P. Bruehl; Daniel Doleys; Elliot Krames;
Mario Meglio; Richard North; Kern
Olson; Enrique Reig; Brian Simpson;
Dennis Turk; Gerald Aronoff; Ronald
Melzack. Pain Practice (September
2004) 4 (3) 204-221(18)

*Review: Tricyclic and tetracyclic
antidepressants are moderately
effective for reducing chronic low-
back pain* ACP Journal Club (2004)
141 (1) 13

*Management of chronic low back
pain* Bogduk, N. Medical Journal of
Australia (2004) 181 (1) 55

*Management of chronic low back
pain* Wenban, AB. Medical Journal of
Australia (2004) 181 (1) 55

*Cost-Effectiveness of Lumbar
Fusion and Nonsurgical Treatment
for Chronic Low Back Pain in the
Swedish Lumbar Spine Study:
A Multicenter, Randomized,
Controlled Trial From the Swedish
Lumbar Spine Study Group* Fritzell,
P; Hagg, O; Jonsson, D; Nordwall, A.
Spine (2004) 29 (4) 421-434

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require more information
about any of the topics
covered in this edition.

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