

# PAIN Practice

Now Indexed In Medline

VOLUME 9

SUPPLEMENT 1

MARCH 2009



5th World Congress

World Institute of Pain—WIP

New York, USA, March 13–16, 2009



**Methods:** Using MRI and provocative discography to establish internal disc disruption, 50 consecutive patients with lumbar discogenic pain ( $\geq 6$  months) were identified, underwent IDET treatment and followed for 24 months. Back pain severity (11-point numeric scale) and function (Oswestry disability index [ODI]) were evaluated pre-treatment and at 12 and 24 months. Clinical success was defined as lack of follow-up surgery at the affected level,  $\geq 2$ -point pain and  $\geq 15$ -point ODI improvement.

**Results:** Mean pain scores decreased from  $7.6 \pm 1.1$  pre-treatment to  $2.4 \pm 1.5$  at 24 months, representing an average 68% improvement ( $P < 0.0001$ ). Mean ODI decreased from  $59.0\% \pm 7.6\%$  to  $20.1\% \pm 11.3\%$  (66%,  $P < 0.0001$ ). Due to persistent symptoms, 9 patients had surgical treatment (4 fusion, 5 disc replacement). One patient did not achieve  $\geq 2$ -point pain improvement, and one patient did not achieve  $\geq 15$ -point ODI improvement. Thus, the clinical success rate was 78% (39 of 50). Clinical success was related to degree of discographic concordance ( $P < 0.0001$ ), HIZ ( $P = 0.003$ ), Pfirrmann grade ( $P = 0.0002$ ), and percent annulus coverage ( $P < 0.0001$ ).

**Conclusions:** IDET offered an effective treatment alternative for these patients with durable clinical improvement in pain and function.

#### PB96 PATIENT-REPORTED OUTCOMES (PRO) IN REFRACTORY PAIN ASSOCIATED TO LOW BACK PAIN: AN ANALYSIS OF THE EFFECT OF PREGABALIN IN A 12-WEEK NATURALISTIC STUDY

F. Ceberio-Balda<sup>1</sup>, M. Flórez-García<sup>2</sup>, C. Morera-Domínguez<sup>3</sup>, X. Masramón<sup>4</sup>, O. Freire<sup>5</sup>, J. Rejas<sup>5</sup>

<sup>1</sup>Rehabilitation Unit, Hospital de Urbamin, Pamplona, Navarra, Spain, <sup>2</sup>Rehabilitation Unit, Foundation Hospital Alcorcón, Alcorcón, Madrid, Spain, <sup>3</sup>Traumatology and Orthopaedic Surgery Unit, Hospital Mutua de Terrasa, Barcelona, Spain, <sup>4</sup>Department of Biometrics, European Biometrics Institute, Barcelona, Spain, <sup>5</sup>Outcomes Research, Pfizer Spain, Alcobendas, Madrid, Spain

**Background and Aims:** To analyze the effect of adding Pregabalin (PGB) on PRO measurements in the treatment of refractory Low Back Pain (LBP) under routine medical practice conditions.

**Methods:** Post hoc analysis of adult patients with refractory chronic LBP included in a prospective, naturalistic, 12-week study. This analysis compared patients receiving PGB as an add-on therapy (PGB add-on) vs. subjects receiving any other analgesic pattern not including PGB (non-PGB). PRO measurements included evaluation of severity and interference of pain (Brief Pain Inventory), anxiety and depression symptoms (HAD scale), and quality-of-life (SF-12).

**Results:** Six hundred and eighty-three patients were analyzed: 82.6% received PGB add-on and 17.4% non-PGB. PGB add-on was associated with higher reduction in pain severity than in non-PGB;  $-3.4$  (2.0) pts, 61.6% responders ( $\geq 50\%$  baseline pain reduction) vs.  $-2.0$  (2.1), 37.3% responders;  $P < 0.0001$ , respectively. Pain interference was also reduced more with PGB add-on:  $-3.5$  (2.1) pts vs.  $-2.0$  (2.3), respectively;  $P < 0.0001$ , and showed greater reduction in depression ( $-4.0$  [4.1] pts vs.  $-2.1$  [3.3];  $P < 0.0001$ ) and anxiety ( $-3.7$  [3.6] pts vs.  $-1.9$  [3.0];  $P < 0.0001$ ) symptoms scores, yielding to a significant improvement in quality of life: mental and physical components change were higher in PGB add-on therapy group:  $+7.3$  (10.6) vs.  $+2.0$  (7.4);  $P < 0.0001$ , and  $+9.7$  (9.6) vs.  $+5.8$  (8.3);  $P < 0.0001$ , respectively.

**Conclusion:** Compared with adding other any drug, addition of PGB to the treatment of refractory LBP seems to be associated with higher improvement in PRO measurements, including reduction of pain severity and interference and improvement of quality of life.

#### PB97 CAN THE BORG SCALE FOR PERCEIVED EXERTION BE USED IN PATIENTS WITH CHRONIC LOW BACK PAIN?

C. Demoulin<sup>1</sup>, J. Verbunt<sup>2</sup>, A. Knotterus<sup>3</sup>, R. Smeets<sup>2</sup>

<sup>1</sup>Department of Motricity Sciences and Department of Physical Medicine and Rehabilitation/Maastricht University, Liège University and CHU of Liège/Maastricht University, Liège, Belgium, <sup>2</sup>Rehabilitation Foundation Limburg/School of Public Health and Primary Care Research Maastricht University, Maastricht, The Netherlands, <sup>3</sup>School of Public Health and Primary Care Research, Maastricht University, Maastricht, The Netherlands

**Background and Aims:** According to several studies, the Borg 6–20 scale is a reproducible tool to measure ratings of perceived exertion (RPE). However, most of them calculated the correlation coefficient or the intraclass correlation coefficient which do not reflect agreement though it is preferable for evaluation purposes. Furthermore, no study has investigated its reproducibility in patients with chronic low back pain (CLBP).

Therefore, the purpose of this study was to assess the Borg scale in such patients with recommended agreement parameters (Standard error of measurement (SEM) and Limits of Agreement (LOA)).

**Methods:** Fifty-eight patients (34 men, 24 women; age range: 20–61 years) with CLBP (mean RDQ scores reaching  $13.9 \pm 3.7$ ) participated in a program of aerobic training on a bicycle (20 minutes performing at 65% to 80% of the maximal heart rate), 3 sessions per week. We recorded heart rate (in beats per minute) and ratings of perceived level of exertion (on a 6–20 Borg scale) during the first 2 sessions during which workload was identical.

**Results:** Table 1 presents means, differences of means and agreement parameters ( $SEM = \sqrt{\text{of within subject variance}}$  and  $LOA = 1.96 \times \text{mean SD of differences}$ ) for Borg scores and HR.

n = 58	Session 1	Session 2	Differences		
	Means (SD)	Means (SD)	S1-S2 Means (SD)	SEM	LOA
Borg Score	13.31 (1.7)	13.28 (1.7)	0.03 (1.2)	0.84	2.3
HR (bpm)	131.9 (13.2)	132.3 (13.2)	-0.4 (8.8)	6.14	17.2

**Conclusions:** Our study revealed satisfactory agreement parameters for Borg values in patients with CLBP.

#### PB98 RESPONSIVENESS AND INTERPRETABILITY OF THE QUEBEC BACK PAIN DISABILITY SCALE

C. Demoulin<sup>1</sup>, R. Ostelo<sup>2</sup>, A.J. Knotterus<sup>3</sup>, R. Smeets<sup>4</sup>

<sup>1</sup>Liège University and CHU of Liège/Maastricht University, Liège, Belgium, <sup>2</sup>EMGO Institute/Department of Health Sciences, VU University, Amsterdam, The Netherlands, <sup>3</sup>School of Public Health and Primary Care Research, Maastricht University, Maastricht, The Netherlands, <sup>4</sup>School of Public Health and Primary Care Research, Maastricht University/Rehabilitation Foundation Limburg, Maastricht, The Netherlands

**Background and Aims:** The purposes of this study were to investigate responsiveness and interpretability of the Quebec Back Pain Disability Scale (QBPDS) by means of recommended methods (Smallest Detectable Change (SDC), ROC parameters) and to estimate the Minimal Important Change (MIC).

**Methods:** In total, 212 participants with chronic non-specific low back pain participated in the study. QBPDS was administered twice to all patients (pre- and post-treatment; T1 and T2) who also completed a General Perceived Effect scale (GPE) at T2. Analyses were based on the GPE score and on score changes between T1 and T2 during which subjects received one of the randomized treatments or had to wait for treatment.



**Results:** The SDC reached 15.8 points while the optimal cut-off point (OCP) of the QBPDS was found to be 5 points (with AUC = 0.85, Sensitivity = 78%, and Specificity = 77%). A complementary ROC analysis based on the QBPDS score change expressed in % revealed OCP of 18.1% (with AUC = 0.856, Sensitivity = 72%, and Specificity = 85%). QBPDS baseline scores and the way the baseline scores are used to cluster patients influenced responsiveness and interpretability indicators.

**Conclusions:** This study proposes MIC values for patients with CLBP referred for multidisciplinary treatment. The baseline scores and the way to cluster patients with regard to their scores have to be taken into account while interpreting the score changes after treatment.

#### **PB99 EPIDURAL STEROID INJECTION AS A MINIMAL INVASIVE APPROACH FOR CHRONIC SCIATIC PAIN**

M.H. Ebrahimzadeh<sup>1</sup>, M.T. Peivandi<sup>2</sup>, J. Sheykhan<sup>3</sup>

<sup>1</sup>Orthopedic Surgery, Ghaem Hospital—Mashhad University of Medical Science, Mashhad, Iran, <sup>2</sup>Orthopedic Surgery, Mashhad University of Medical Science, Mashhad, Iran, <sup>3</sup>Mashhad University of Medical Science, Mashhad, Iran

**Background:** Regarding to the prevalence of low back pain in the community, we came to evaluate epidural steroid injection as a minimally invasive way in patients with acute radicular LBP.

**Method and Materials:** Forty patients were studied prospectively during one year whom referred to orthopaedic clinics of Emdadi Hospital with acute radicular LBP. Patients with discal herniation which were diagnosed in 6 weeks of initiation of acute pain without any response to medical therapy, entered this study.

MRI was done for all patients. Patients were scored through PROLO assessing system. Patients were injected 40 mg of triamcinolone in combination with lidocain 2% epidurally every other day for 3 times. Patients were evaluated before, just after 3 months and 6 months later.

**Results:** Among all patients 62.5% were male and 37.5% were female. 40% of patients complained of paresthesia and all mentioned intermittent LBP. SLR test differed statistically before first and after the third injection ( $P < 0.05$ ). Pain relief in response to epidural injection and as a result decrease in analgesic drug intake was obvious and statistically meaningful in second and third follow up ( $P < 0.05$ ), but it was not the same in function and effectiveness ( $p > 0.05$ ). In general after injection 27.5% of patients were fully satisfied and 62.5% were relatively satisfied.

**Conclusion:** Sciatic pain is more prevalent among male. There was little improvement in effectiveness and physical condition of patients after steroid injection. Pain relief happened quickly and dramatically after injection and in parallel analgesic drug application decreased obviously.

#### **PB100 LONG-TERM EFFECTS OF A COMBINED EXERCISE AND MOTIVATION PROGRAM IN PATIENTS WITH CHRONIC LOW BACK PAIN: A FIVE-YEAR FOLLOW-UP**

M. Friedrich<sup>1</sup>, G. Gittler<sup>2</sup>

<sup>1</sup>Department for Orthopaedic Pain Management, Orthopaedic Hospital Speising, Vienna, Austria,

<sup>2</sup>Department of Psychology, University of Vienna, Vienna, Austria

**Background and Aims:** There is appreciable evidence of a transient positive effect of exercise therapy in the treatment of chronic low back pain. In a study on the effects of a combined exercise and motivation program on compliance and the level of disability in patients with chronic low back pain, positive effects were still present one year after termination of supervised combined treatment. The Aim of this study was to investigate the 5-year effects of the program.

**Methods:** Of the 93 chronic low back pain patients randomly assigned to either a standard exercise program or a combined

exercise and motivation program, 56 patients were available for 5-year follow-up. The main outcome measures were disability (low-back-pain outcome score), pain intensity, physical impairment (finger-tip-to-floor-distance and abdominal muscle strength), working ability, and compliance as measured based on patient reports of the number of years they continued exercising regularly after the termination of supervised treatment.

**Results:** Five years after study entry, there was a significant difference in favor of the motivation group with regard to the disability score ( $P = 0.001$ ), pain intensity ( $P = 0.001$ ), and working ability ( $P = 0.013$ ). No significant differences were found in the impairment parameters. With regard to compliance, a significant difference in favor of the control group was seen ( $P = 0.023$ ).

**Conclusions:** More than 5 years after conclusion of the combined exercise and motivation program, the positive effects on disability, pain intensity, and work ability were still present.

#### **PB101 CHRONIC LBP IN A DEVELOPING COUNTRY, AT AN UNDER RESOURCED STATE HOSPITAL- IS THERE A CASE FOR FIRST LINE INTERVENTIONAL PAIN MANAGEMENT?**

E. Frohlich, P. Du Plessis

Anaesthesiology, Witwatersrand University, Johannesburg, South Africa

**Background and Aims:** Chronic low back pain poses a significant social and economic burden.

The literature is recommending a multidisciplinary approach involving pharmacology, cognitive behavioral therapy, occupational therapy, physiotherapy a.s.o.

In our unit we apply a conservative multidisciplinary approach, however shortages of allied therapy staff, patients financial circumstances and the erratic availability of primary and secondary analgesics are frustrating and discouraging for patients and medical staff.

**Methods:** A retrospective analysis of data collected from our records was conducted. Parameters analyzed were the compliance with multidisciplinary modalities, availability of drugs, VAS, activity level, mood, and satisfaction with therapy. The interventional modalities that were employed in our unit were analyzed separately.

**Results:** We have reviewed 164 consecutive records. Parameters analyzed were quality of life, activity, mood, and VAS. The cost of multidisciplinary intervention was compared to that of interventional modalities.

**Conclusion:** We postulate that in the cash strapped environment of a developing country, the population suffering from chronic Low Back pain cannot be adequately treated following a strict multi disciplinary program.

We suggest that evidence based interventional procedures could be brought forward on the treatment ladder, allowing carefully selected interventions to become a first line treatment in our patient population.

We hypothesize that the lack of continuity of service by allied practitioners, limited choices of analgesics, shortages and unplanned withdrawal of medication and patient's financial inability to comply with multidisciplinary treatment, make a case for early interventional therapy. We analyze the outcome and financial implications of this approach.

#### **PB102 ATTACHMENT AND PAIN**

M. Giuliani

Orthopädische Universitätsklinik Heidelberg, Heidelberg, Germany

Pain, a multidimensional phenomenon, is influenced by psychosocial and biological variables. Research in attachment theory starts from the assumption that types of attachment and the corresponding mental models of the self, of others and of the social environment are determined by early interpersonal experience. These types can provide crucial clues to