Keywords: Chronic low back pain; Treatment; Therapies; Systematic review

Objectives.– Chronic low back pain management is constantly evolving. We made a systematic review over the 5 past years to assess therapeutic advances in this area.


Results.– Eighty-six articles have been extracted and analysed. In a first attempt, non opioid analgesics should be used, associated with non steroid anti-inflammatory drugs. A brief patients’ education about the problem and advice to stay active are recommended, using if possible a back book or a visual support. Exercise therapy of any sort is recommended, as it improves function and return to work. Steroids injections have not proved any efficacy for chronic low back pain without radicular involvement. Spinal manipulations have a short-term efficacy regarding pain and function, but are not better than previous therapies. Acupuncture, massages, yoga, and postural therapies are more effective than usual care on short-term pain and function improvement. Secondary recommendations include multidisciplinary rehabilitation, whatever symptoms duration. They improve functional status, reduce occupational disability and the number of sick leave days. Adjunctive cognitive behavioural therapy is interesting and may have a long-term effect. An integrated care program with a workplace-directed intervention, and a stratified approach, by use of prognostic screening, were both effective and cost-effective. Phase 2 trials showed encouraging results regarding the effect of TNF alpha inhibitor on pain.

Conclusions.– Integrated care program and stratified approach by use of prognostic screening are promising non pharmacologic treatments. Regarding pharmacologic treatments, biological therapies to target pain should be the next step.

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CO28-002-e

Chronic low back pain: Economic impact in the patient perspective (LombEco I)

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Keywords: Chronic low back pain; Economic impact; Work disability; Patient perspective

Aim.– The aim of the study is to assess the economic impact of chronic low back pain in the patient perspective using income change due to work disability as criterion.

Method.– Patients selected for functional restoration for chronic low back pain were prospectively included in the study. They were at work, unemployed or in sick leave because of low back pain. Included patients were systematically assessed. Work disability corresponded to sick leave or unemployment after termination because of low back pain. Loss of income due to low back pain induced work disability was the difference between the income before work disability and the income at the time of inclusion. Factors associated with the loss of income were investigated using multivariate analysis.

Results.– Two hundred and forty-four patients were included: age 43 ± 9 years, ratio F/M 87/157. Occupational categories were as follows: 101 employees, 87 workers, 46 intermediate professions, 10/frameworks. 199 patients were in situation of work disability for 12 ± 9 months in mean. Patients with work disability were more painful, had higher scores using Quebec and Dallas questionnaires, and had lower income than the others (P < 0.05). Loss of income due to low back pain induced work disability was 14% (interquartile 27) in the total disabled population: 6% (9) for compensation by work injury insurance, 22% (36) by health insurance and 42% (35) by unemployment insurance. The income became lower than SMIC in 18% of cases. The loss of income was only associated with the occupational category. The risk of income loss due to low back pain induced disability was 2 folds higher in workers and employees than in other occupational categories: OR 2.16 [95%CI 1.10–4.24], P = 0.025.

Discussion.– Low back pain induced work disability was associated with an income decrease, which varied according to the type compensation system. The probability of income loss due to low back pain induced work disability was higher in employees and workers than in other occupational categories.

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CO28-003-e

Search of predictive factors for return to work after a functional restoration program in chronic low back pain

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Keywords: Chronic low back pain; Functional restoration program

Objective.– Low back pain is a stake in public health. It is medico-economically important to better know which inclusion criteria are predictive of working ability after a 4-weeks functional restoration program in chronic low back pain.

Patients and methods.– Seventy-nine patients were included, 43 (54.4%) men, and 36 (45.6%) women. Mean sick leave prior to inclusion was 146 days. They performed a 4-weeks restoration program. Evaluation criteria were: Sick leave time, the Paris Task, the finger to floor distance, the heel-buttock distance, the visual analogue scale of pain, the Sorensen Test and the PILE Test. They were noted at inclusion time, at the end of the program and at 6 months after the end of the program. Statistical analysis was performed by binary logistic regression.

Results.– At 6 months, 36 patients (45.6%) return to work at full or part-time. The predictive factors of return to work were the sick leave time prior to inclusion and the PILE test at the end of the program. These factors were not correlated (r = 0.27) which means each influence the return to work for their own way.

Conclusion.– Reduce the inclusion waiting period and so the duration of the sick leave is a priority. In our program, this period is still too long. We need a better communication with general practitioners and medical advisers. Pain, flexibility and muscular strength are not predictive of program success.

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CO28-004-e

Chronic low back pain: Effect of a program mixing ambulatory physiotherapy in the community and multidisciplinary coordination in a rehabilitation center

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Keywords: Chronic low back pain; Private physiotherapy; Coordination; Pluridisciplinary; Mixed program

Objective.– Low back pain induces physical limitations, anxiety and depression and reduction of activity and social participation. The objective of this study is to assess the short-term effects of a program mixing ambulatory physiotherapy, provided in the community by private practice physiotherapists and multidisciplinary coordination.
Methods.– Design: prospective before/after study.
Population.– Sixty-four workers (37 males, mean age 42.4 ± 8.8 years) with 187.9 ± 148.7 days mean duration of sick leave during the preceding 24 months.

Intervention.– Fifteen one-hour physiotherapy sessions, delivered in the community by private practice physiotherapists; 5 one-day session, in a rehabilitation center providing coordination by a physiatrist, contact with the occupational physician, advice by an occupational therapist and a psychologist, group interaction, on a 5-week period.

Outcome measures.– Spine strength and flexibility, pain, psychological impact, quality of life, self-assessment of ability to work.

Results.– Among the patients, 87.5% have attended the scheduled physiotherapy sessions and 70.3% the multidisciplinary one day sessions.

All parameters were significantly improved at the end of the program (P < 0.05). Finger-floor distance: 11.3 versus 17.6 cm; Sørensen test: 80.5 versus 60.6 sec; Itô test: 79.8 versus 53.4 sec; Pain: 42 versus 52 mm on the AVS. Quality of life DALLAS: 43.3 versus 59.2; work/leisure DALLAS: 42.6 versus 60.8; anxiety/depression DALLAS: 30.3 versus 41.3; social behavior DALLAS: 26.9 versus 32.2; HAD: 13.2 versus 15.7. FABQ: 35.1 versus 43.0.

Physical SF36: 39.4 versus 34.7; mental SF36: 46.0 versus 41.4.

The proportion of patients feeling able to work has significantly increased (28.3% versus 63.3%: P < 0.0001).

Overall cost of the program for the social insurance system: 1532 €/patient.

Discussion.– This program, mixing community based and rehabilitation center based services is both feasible, efficient on the short term, and cheaper than full time out-patient programs. Comparison to other programs could show that multidisciplinarity rather than intensity is the key component to success and can be achieved at an acceptable cost.

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CO28-005-e Impact of Light-FRP (Functional restoration program) in a cohort of 47 patients with chronic low back pain
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Keywords: Functional Restoration of the spine; Chronic low back pain; Muscle strengthening; Walking; Spine metrics

Introduction.– Low back pain, third cause of chronic disability, leads to a high incidence of sick leaves [1]. Intensive Functional Restoration Programs (FRP, 5 days/week for 5 weeks) facilitate motor improvement and return to work [2]. Also, a lighter FRP (Light-FRP, 1 day/week for 5 weeks) appears to be beneficial at the end of the program [3]. The objective of this study is to evaluate the effects of a Light-FRP, at the end and 6 months after the program in patients with chronic low back pain.

Methods.– Forty-seven patients with chronic low back pain (age, 48 ± 10 years) were treated in an open-label Light-FRP, consisting of cardiopulmonary training, stretching, motor training, and proprioceptive and ergonomic spine exercises. Biomechanical evaluations (motor capacities, muscle extensibility, spinal postures, walking) and quality of life were analyzed before, at the end of the Light-FRP (n = 47) and 6 months after the end (n = 23).

Results.– At the end of Light-FRP we observed improvements in the ability to lift weights (+ 75%, P = 0.001), the extensibility of the posterior muscle chain (+7 cm, p = 0.0015), the maximal flexion of the lumbar spine (+5%, P = 4.0 × 10−14), the maximal amplitude of right/left lumbar spine bending (+5%, P = 4.0 × 10−14), spontaneous walking speed (+17%, P = 1.9 × 10−5), stride length (+8%, p = 2.1 × 10−5), step temporal asymmetry (-18%, P = 0.028), and quality of life (QUEBEC, P = 4.4 × 10−4; HAD-Depression, P = 0.031). Six months after the Light-FRP beneficial effects on walking speed, extensibility and quality of life were maintained.

Conclusion.– The Light-FRP program enhances functional and motor capacities and quality of life in patients with low back pain, with some benefits lasting 6 months after discontinuation of the program.

References

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CO28-006-e Neck pain on professional cameras users in Benin
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Keywords: Neck pain; Professional users of camera; Television; Benin

Using camera requests excessive and repeated movements of neck. Cameramen are exposed to neck pain [1]. Very few studies have examined the neck in these professional cameramen.

Objective.– To study the neck pain among professional users of camera of televisions in Benin.

Method.– Prospective cross-sectional study aimed to be descriptive and analytic on 50 camera operators surveyed from November 2011 to January 2012.

Results.– Mean age was 33.66 years. Ninety-four percent were male, average work experience was 9 years. Average working time per day was 10.62 ± 2.70 hours. A conflict situation of occupational origin was observed in 82% of subjects. Ninety-four percent camera operators have used both feet and PTZ. The arrow cervical average was 4.38 ± 1.82 cm and cervical muscle spasms were observed in 96%. Eighty percent of respondents experienced cameramen neck pain of varying intensities with radiation in the upper extremities in 77.5%. Were correlated with the occurrence of neck pain: age (P = 0.001), number of years of work experience (P = 0.0001), the average working time per day (P = 0.0001), contractures cervical paraspinal muscle (P = 0.0000). The treatment consisted of self-medication in 97.5%. Conclusion: Professional users of camera are very vulnerable to neck pain and for their welfare officials TV stations must implement strategies to reduced strain of cameramen.

Reference

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CO28-007-e Traditional Tai-Chi in patient education, from an ancient martial art to a new complementary method in physical medicine and rehabilitation – Rational and practical implementation in Paris public hospitals
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Keywords: Tai Chi; Traditional art; Pain; Physical medicine and rehabilitation

Conclusion.– Traditional Tai-Chi in patient education, from an ancient martial art to a new complementary method in physical medicine and rehabilitation is rational and practical in Paris public hospitals.

Objective.– To study the relationship between traditional martial art practice and physical rehabilitation.

Methods.– Thirty patients suffering from chronic low back pain were randomized into two groups: Tai Chi (n = 15) and control group (n = 15) who received information about their condition. The two groups were comparable in age, sex, duration and intensity of pain, and disability. The intervention consisted of 10 90-min Tai Chi sessions, once a week for 5 weeks.

Results.– Tai Chi group showed a significant improvement in pain intensity (P = 0.03) and disability (P = 0.04). The control group did not show any significant change. Conclusion: Traditional Tai-Chi can be an effective intervention for chronic low back pain.

Reference

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