Methods.- Design: prospective before/after study.

*Population.*– Sixty-four workers (37 males, mean age  $42.4\pm8.8$  years) with  $187.9\pm148.7$  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; Sorensen test: 80.5 versus 60.6 sec; Ito 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,  $48 \pm 10$  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%,  $P=4.0\times10^{-14}$ ), the maximal amplitude of right/left lumbar spine bending (+5%,  $P=4.0\times10^{-14}$ ), spontaneous walking speed (+17%,  $P=1.9\times10^{-5}$ ), stride length (+8%, p=2.1\*10<sup>-5</sup>), step temporal asymmetry (-18%, P=0.028), and quality of life (QUEBEC,  $P=4.4\times10^{-4}$ ; 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

- [1] Poiraudeau, Duvallet, Barbosa Dos Santos. et al. Efficacité à 1an d'un reconditionnement à l'effort proposé à des lombalgiques chroniques lourdement handicapés. Ann Readapt Med Phys 1999;42:33–41.
- [2] Bendix, Bendix, Haestrup. et al. A prospective, randomized 5-year follow-up study of functional restoration in chronic low back pain patients. Eur Spine J 1998;7(2):111–9.
- [3] Fardjad, Boutou, Behnegar. et al. The beneficial effects of a "Light FRS" (Functional Restoration of the spine) program on biomechanical parameters of 23 patients with chronic low back pain. ESMPR 2012.

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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  $9\pm5.96$  years. Average working time per day was  $10.62\pm2.70$  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  $4.38\pm1.82$  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=0.001), 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

[1] Hogg-Johnson S, Vandervelde G, Carroll LJ, Holm LW, Cassidy JD, Guzman J, et al. The burden and determinants of neck pain in the general population: results of the bone and joint decade 2000-2010 task force on neck pain and its associated disorders. Spine 2008;33(4 suppl.):S39–51.

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## СО28-007-е

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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