THERMAE
DI SALSOMAGGIORE

DECIMO CONVEGNO DI TRAUMATOLOGIA CLINICA E FORENSE

17° Corso di Ortopedia, Traumatologia e Medicina Legale

LE COMPLICANZE IN ORTOPEDIA E TRAUMATOLOGIA

PROBLEMATICHE CLINICHE, CONSIDERAZIONI MEDICO LEGALI E CONTROVERSIE GIURIDICHE

Presidenti

F.M. Donelli, M. Gabbrielli, G. Varacca

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L'EFFICACIA DELLA IDROCHINESITERAPIA NELLA LOMBALGIA POSTTRAUMATICA DELLO SPORTIVO

Idrochinesiterapia

Utilizzo dell'acqua a fini riabilitativi, sfruttando le sue proprietà chimico-fisiche e la sua integrazione con i principi neuromotori della riabilitazione

Riduzione del peso corporeo e possibilità di effettuare movimenti anche in condizioni di carico ridotto

Effetto analgesico e miorilassante

Maggior resistenza al movimento, tonificazione muscolare con risparmio articolare

Effetto propriocettivo (miglior consapevolezza della posizione corporea e del senso di movimento, maggior sicurezza nell'esecuzione dei movimenti)

Movimenti più lenti, armonici, controllati, facilitando il rilassamento fisico e psichico e mantenendo una tensione muscolare uniforme

L'EFFICACIA DELLA IDROCHINESITERAPIA NELLA LOMBALGIA POSTTRAUMATICA DELLO SPORTIVO

Idrochinesiterapia

Acque termali salsobromoiodiche

- 4° Baumé (ca 44gr di sale per litro)
- T° 33°C
- Effetto
  - Antiinfiiammatorio
  - Antiedemigeno
  - Antisettico

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Idrochinesiterapia

EFFICACE?

Pratica clinica

Sì!

Evidence Based Medicine

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L'EFFICACIA DELLA IDROCHINESITERAPIA NELLA LOMBALGIA POSTTRAUMATICA DELLO SPORTIVO

Prevalence of low back pain among athletes: a systematic review

J Back Musculoskelet Rehabil. 2018;31(5):901-916.

Farahbakhsh F, Rostami M, Noormohammadpour P, Mehraki Zade A, Hassanmirazaei B, Faghih Jouibari M, Kordi R, Kennedy DJ

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CONCLUSION:

Like general population, LBP is quite prevalent among athletes. There is a lack of sound data on the prevalence and mechanism of LBP in some popular sports such as volleyball, swimming and track and field.
The lack of standardization of research methods and outcome measurement tools are significant problems in literature. Researchers need to use standard and internationally acceptable definitions for LBP and related functional disability. Investigators are encouraged to conduct epidemiologic studies, along with search for possible mechanism of LBP, by recruitment of large sample population of the athletes who are selected through randomization of the national population and adopt recent recommendations for a standard definition of LBP.

L'EFFICACIA DELLA IDROCHINESITERAPIA NELLA LOMBALGIA POSTTRAUMATICA DELLO SPORTIVO

Hydrotherapy and chronic lower back pain: a pilot study

Australian Physiotherapy, vol 37, 4, 229-234, 1991

Tracey E Smit, Ron Harrison

In a pilot study which investigated the effectiveness of hydrotherapy in the management of lumbar spondylosis, a group of 20 people suffering from chronic lower back pain were given a fourweektrial of hydrotherapy treatment, consisting of three individual sessions each week. The group was assessed both before and after the course of hydrotherapy and each person was also sent a questionnaire three months after the conclusion of their treatment.

Results demonstrated a **reduction in pain levels and suggested that thoraco-Iumbar mobility could be improved,** especially if the range was less than normal before treatment.

Results from the questionnaires showed that the beneficial effects from hydrotherapy may not be long lasting, suggesting the need for continuing sessions to maintain improved mobility and reduced pain levels.

Further studies including a matching control group are indicated to confirm these results.

L'EFFICACIA DELLA IDROCHINESITERAPIA NELLA LOMBALGIA POSTTRAUMATICA DELLO SPORTIVO

Efficacy of Aquatic Exercises for Patients with Low-back Pain

Kurume Medical Journal, 46, 91-96,1999

MAMORU ARIYOSHI, KYOSUKE SONODA, KENSEI NAGATA, TAKERU MASHIMA, MICHIHISA ZENMYO, CHINSU PAKU, YOSHIAKI TAKAMIYA, HIROKI YOSHIMATSU, YOSHIMASA HIRAI, HIDEKI YASUNAGA, HIDETOSHI AKASHI, HIROYASU IMAYAMA, TOMOHISA SHIMOKOBE, AKIO INOUE AND YOSHITERU MUTOH
Department of Surgery, Kyoritsu Hospital, Kitakyusyu 804-0073,Department of Orthopaedic Surgery, Kurume University School of Medicine, Kurume 830-0011 and Department of Physical and Health Education, Graduate School of Education, University of Tokyo, Tokyo 113-0033, Japan

We have studied 35 patients (25 female and 10 male) with low-back pain who were managed with aquatic exercises after an appropriate period of treatment for their condition in the medical institution. The exercises, employed consisted of strengthening exercises for the abdominal, gluteal, and leg muscles, stretching of the back, hip, hamstrings, and calf muscles, walking in water, and swimming.
All the patients had been participating in the exercise program for more than 6 months. The frequency of performing exercises was once a week for 7 patients, twice a week for 19, and 3 or more times a week for the remaining patients. The method used in this study was a survey questionnaire which was composed of questions about the patient' s physical and psychological condition**.**

Those patients who had performed exercises twice or more in a week showed a more significant improvement in the physical score than those who performed exercises only once a week.

More than 90% of the patients felt they had improved after 6 months of participation in the program.
The improvement in physical score was independent of the initial ability in swimming.

L'EFFICACIA DELLA IDROCHINESITERAPIA NELLA LOMBALGIA POSTTRAUMATICA DELLO SPORTIVO

Evidence for Effective Hydrotherapy

Physiotherapy, 88,9, 514-529, 2002

J. Geytenbeek

The purpose of this study was to search for, appraise the quality of and collate the research evidence supporting the clinical effectiveness of hydrotherapy.

Method
A systematic search of literature was performed using ten medical and allied health databases from which studies relevant to physiotherapeutic hydrotherapy practice were retrieved. Patient trials were critically appraised for research merit using recognised published guidelines and the results were collated into clinical, functional and affective outcomes for the investigated populations.

Results
Seventeen randomised control trials, two case-control studies, 12 cohort studies and two case reports were included in the appraisal. Two trials achieved appraisal scores indicating high quality evidence in a subjectively evaluated merit categorisation. Fifteen studies were deemed to provide moderate quality evidence for the effectiveness of hydrotherapy.

Discussion
Flaws in study design and reporting attenuated the strength of the research evidence. Recommendations were made for the future direction of clinical hydrotherapy research. Randomised controlled trials with larger sample sizes, assessor blinding and the use of validated and reliable outcome measures in subjects with neurological conditions and acute orthopaedic injuries are particularly required

Conclusion

The balance of high to moderate quality evidence supported benefit from hydrotherapy in pain, function, self-efficacy and affect, joint mobility, strength, and balance, particularly among older adults, subjects with rheumatic conditions and chronic low back pain

L'EFFICACIA DELLA IDROCHINESITERAPIA NELLA LOMBALGIA POSTTRAUMATICA DELLO SPORTIVO

Therapeutic aquatic exercise in the treatment of low back pain: a systematic review

Clin Rehabil. 2009 Jan;23(1):3-14.

Waller B, Lambeck J, Daly D.
University of Jyväskylä, Finland.

OBJECTIVE: To examine the effectiveness of therapeutic aquatic exercise in the treatment of low back pain.

METHODS: A search was performed of PEDro, CINAHL (ovid), PUBMED, Cochrane Controlled Trials Register and SPORTDiscus databases to identify relevant studies published between 1990 and 2007.
POPULATION: Adults suffering from low back pain.
INTERVENTION: All types of therapeutic aquatic exercise.
COMPARISON:All clinical trials using a control group.
OUTCOMES: Oswestry Disability Index, McGill Pain Questionnaire, subjective assessment scale for pain (e.g. visual analogue scale) and number of work days lost as a direct result of low back pain. Methodological quality was assessed using the PEDro scale and the SIGN 50 assessment forms.

RESULTS: Thirty-seven trials were found and seven were accepted into the review. Therapeutic aquatic exercise appeared to have a beneficial effect, however, no better than other interventions. **Methodological quality was considered low in all included studies.**
The heterogeneity among studies, in numbers of subjects, symptoms durations, interventions and reporting of outcomes, precluded any extensive meta-analysis of the results.

CONCLUSION:
There was sufficient evidence to suggest that therapeutic aquatic exercise is potentially beneficial to patients suffering from chronic low back pain and pregnancy-related low back pain.
There is further need for high-quality trials to substantiate the use of therapeutic aquatic exercise in a clinical setting

L'EFFICACIA DELLA IDROCHINESITERAPIA NELLA LOMBALGIA POSTTRAUMATICA DELLO SPORTIVO

Effect of Hydrotherapy Based Exercises for Chronic Nonspecific Low Back Pain.

Sawant, Rakhi Sadanand; Shinde, Sandeep Babasaheb

Indian Journal of Physiotherapy & Occupational Therapy . Jan-Mar2019, Vol. 13 Issue 1, p133-138. 6p

Background: Water has been highly considered for rehabilitation because it facilitates the application of established therapeutic interventions including stretching, strengthening, joint mobilization, balance, gait training and endurance training that helps in reducing back pain due to unique physical characteristics and low risks.

Objective: To compare the effect of Hydrotherapy based exercises and conventional physiotherapy in chronic nonspecific low back pain.

Materials and Method: An experimental study was conducted at physiotherapy Department of Krishna Institute of Medical Sciences. A total 30 patients were equally divided into two groups using convenient sampling with random allocation (Group A and Group B). Group A was given Conventional Therapy and Group B was given Hydrotherapy.

Results: Statistical analysis was performed using paired t-test and unpaired t-test. Intra group comparison (within group) was analysed statistically using paired t-test for VAS, ROM, MMT and MODI. This shows that there is an extremely significant difference of Group A similarly there is an extremely significant difference of Group B. But in intergroup comparison (between group) was analysed statistically using unpaired t-test. This shows that pre-intervention there was no statistically significant difference seen with P values of VAS, ROM, MMT and MODI. While on comparing post interventional values, the results between two groups using unpaired t-test revealed that there was statistically significant difference seen with P values of VAS was (P- 0.0182) but there was no statistically significant difference seen with P values of ROM, MMT, MODI.

Conclusion: From the study, it is concluded that there was significant improvement in subjects who underwent conventional therapy and hydrotherapy.

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Group hydrotherapy versus group land-based treatment for chronic low back pain

Physiother Res Int. 1997;2(4):212-22.

Sjogren T, Long N, Storay I, Smith J.
Essendon Hospital, Melbourne, Australia.

Sixty subjects with chronic low back pain (LBP) were sequentially allocated to either hydrotherapy treatment or land treatment groups in order of presentation. Subjects acted as their own controls for a period of three weeks, after which they attended their respective group sessions twice weekly for six weeks. Twenty-eight subjects from each group attended all treatment and assessment sessions.
Results indicated that both groups improved significantly in functional ability and in decreasing pain levels.
Thoracolumbar mobility did not improve significantly in either group. Overall there was no significant difference found between the two types of treatment, although results should be viewed as encouraging for the advocates of both hydrotherapy and land-based exercise as a treatment for chronic LBP.

L'EFFICACIA DELLA IDROCHINESITERAPIA NELLA LOMBALGIA POSTTRAUMATICA DELLO SPORTIVO

Effectiveness of Back School program versus hydrotherapy in elderly patients with chronic non-specific low back pain: a randomized clinical trial.

Costantino C, Romiti D.

Acta Biomed. 2014 Jun 24;85(3):52-61

Chronic low back pain (CLBP) is a major cause of disability, for which clinical practice guidelines suggest exercise programs, such as Back School program (stretching and selective muscle reinforcement techniques) and Hydrotherapy technique, as an effective treatment to reduce pain intensity and disability.

METHODS:
We enrolled 56 elderly individuals, affected by non-specific CLBP, whose pain had worsened in the last three months, which were randomly allocated to Back School (group A) or to Hydrotherapy program (group B). Each group underwent two one-hour-treatment sessions per week, over a 12-week period. Each patient was evaluated using the Roland Morris Disability Questionnaire (RMDQ) and the 36-Item Short Form Health Survey (SF-36) V2.0 at the beginning (T0), at the end of treatment (T1) and at the 3-month follow-up (T2).

RESULTS:
At T1 and T2 we observed a highly significant statistical difference in the values measured in both groups: at T1 in group A RMDQ improvement of 3.26±1.02 (p<0.001) and SF-36 of 13.30±1.44 (p<0.001); in group B RMDQ improvement of 4.96±0.71 (p<0.001) and SF-36 of 14.19±1.98 (p<0.001). We have also evaluated the difference in effectiveness of the two programs and no significant statistical differences were found between the two groups.

CONCLUSIONS:
Back School program and Hydrotherapy could be valid treatment options in the rehabilitation of non-specific CLBP in elderly people. Both therapies proved to be effective and can be used in association with other rehabilitation programs. We believe that Back School program should be favored for its simplicity and the small number of resources required.

L'EFFICACIA DELLA IDROCHINESITERAPIA NELLA LOMBALGIA POSTTRAUMATICA DELLO SPORTIVO

Comparing the effects of hydrotherapy, relaxation and McKenzie exercise on improvement of chronic low back pain in athletes

Anesthesiology and Pain Medicine, 2014, Volume 4, Issue 4: 11-21

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Aim and Background: The purpose of this study was to compare the effects of hydrotherapy, relaxation and McKenzie exercise on improvement of chronic low back pain in athletes.

Methods and Materials: The athletes with chronic low back pain formed our statistical research society .Forty subjects aged 32.25±3.6 years were selected purposefully from sport fields such as Track and Field, Badminton, Wrestling, Volleyball and Weightlifting at the professional level with more than six month history of low back pain. Subjects were randomly divided into four groups (hydrotherapy, relaxation, McKenzie program and control). The protocol consisted of training for 8 weeks, three days a week and each session was about an hour. We used McGill Pain Questionnaire, and Oswestry disability index for evaluation.

Findings: The results of this study showed that the studied methods significantly ($P<0.05$) decreased the pain in athletes, and improved their performance compared to the pre-test state and the control group but no significant difference between the groups and their effectiveness level was found.

Conclusion: The treatment methods used in this study are useful to improve the back pain and to decrease weakness and disability with no significant difference between their effectiveness.

L'EFFICACIA DELLA IDROCHINESITERAPIA NELLA LOMBALGIA POSTTRAUMATICA DELLO SPORTIVO

Conclusioni

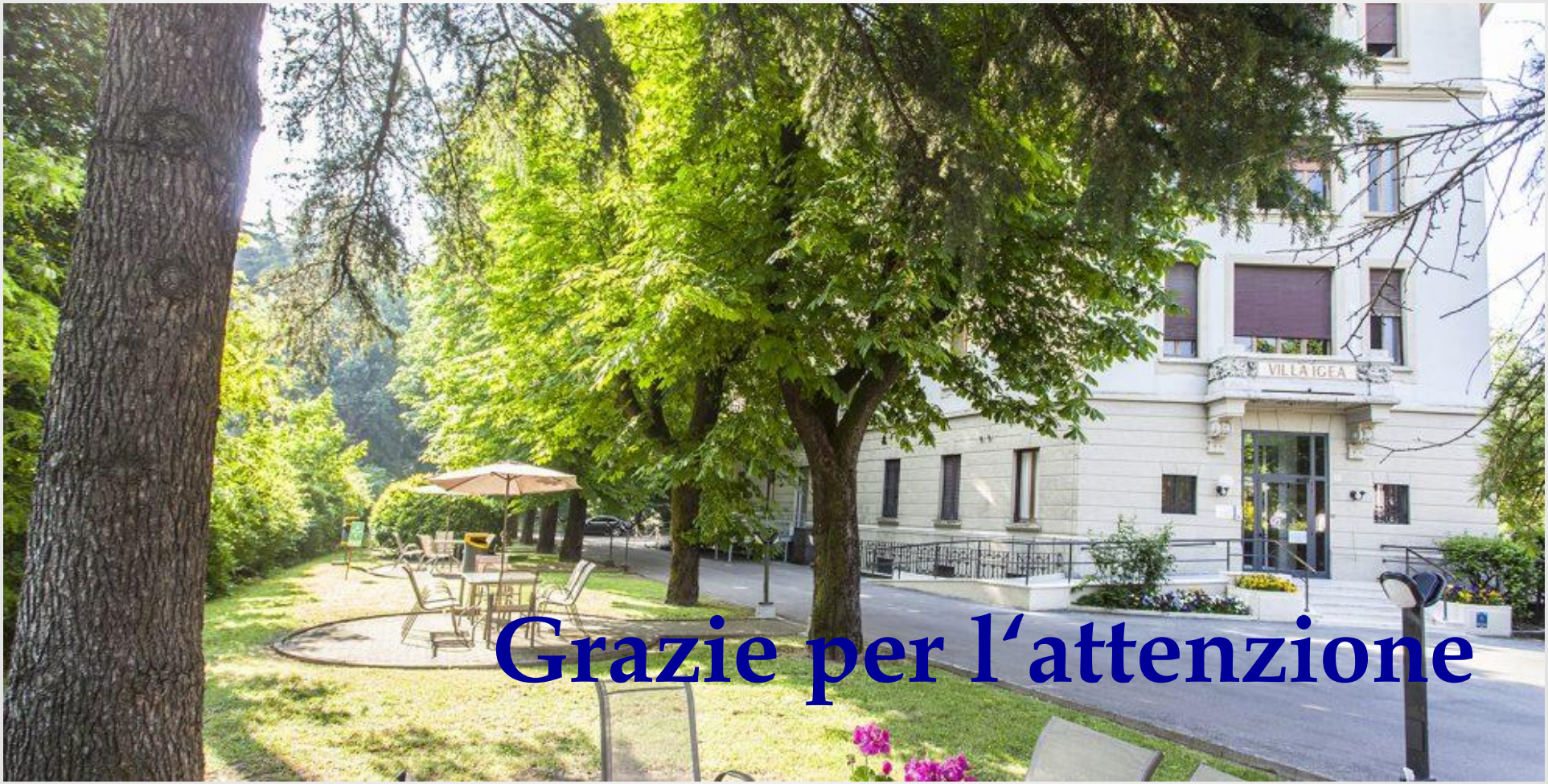
Idrochinesiterapia

EFFICACE?

Sì!

Necessari studi di maggiore qualità!

L'EFFICACIA DELLA IDROCHINESITERAPIA NELLA LOMBALGIA POSTTRAUMATICA DELLO SPORTIVO



Grazie per l'attenzione