



International Congress of Osteopathic Medicine



4 October - 6 October 2013 · WELCOME KONGRESSHOTEL BAMBERG Germany

Seventh International Symposium on
Advances in Osteopathic Research
Saturday, October 5, 2013

Program

08.45 – 09.00 Opening

*Florian Schwerla, M.Sc. (USA), D.O., German Academy of Osteopathy (AFO)
Prof. Marina Fuhrmann, M.Sc. (USA), D.O., President of the German Osteopathic Association (VOD)*

09.00 – 10.00 Keynote lectures

Latest scientific findings in the field of international fascia research
Dr. biol. hum. Dipl. Psych. Robert Schleip, Direktor of the Fascia Research Group, University Ulm, Germany (video conference from London)

Fibrillar architectures inside and under the skin

Dr. med. J.C. Guimberteau, Surgeon, France

10.00 – 10.40 Presentations

Osteopathic treatment for non-specific low back pain. A systematic review and meta-analyses
Helge Franke MSc, D.O., INIOST-Institute for Osteopathic Studies, Germany

The feasibility of conducting a RCT investigating the effectiveness of cranial osteopathy in infants with colic in addition to usual care: A study protocol

Anne Jakel BSc (Hons) Ost, MSc, DPhil, European School of Osteopathy, UK

10.40 – 11.10 Coffee break

11.10 – 11.40 Keynote lecture

Osteopathic manipulation and motor neuron excitability
Gary Fryer, Ph.D., B.Sc. (Osteo), Victoria University, Melbourne, AU

11.40 – 13.00 Presentations

Somatic dysfunctions as consequences of wisdom teeth extraction in patients with temporomandibular disorder: a retrospective study.

Olivier Merdy D.O., Institut des Hautes Études Ostéopathiques (IdHEO), Nantes, France

Osteopathic Therapy in Complex Treatment of Children with Plano-valgus Foot Deformity

Larisa Lasovetskaya MD, DO, (Russian Academy of Osteopathic Medicine, St. Petersburg)

Safety incidents and treatment responses in UK osteopathy

Steven Vogel DO, Vice Principle (Research), British School of Osteopathy

Osteopathic treatment of patients with shoulder pain. A randomized controlled trial

Florian Schwerla MSc, D.O., German Academy of Osteopathy

Abstracts of Presentations

Osteopathic treatment for non-specific low back pain. A systematic review and meta-analysis

Helge Franke (INIOS-T-Institute for Osteopathic Studies, Germany), Jan-David Franke (Jacobs University, Bremen, Germany), Gary Fryer (Victoria University, Melbourne, AU)

Background: Non-specific back pain is common, disabling, and costly. The clinical effectiveness of osteopathic manipulative treatment (OMT) for non-specific low back pain (LBP) remains unclear.

Objectives: The objective of this review is to scrutinize the effectiveness of OMT in the treatment of non-specific LBP regarding subjective pain parameters and functional status.

Search strategy: A systematic literature search was performed in October and November 2012 in the electronic databases Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE, CINAHL, PEDro, OSTMED-DR, OSTEOPATHIC WEBRESEARCH and databases of ongoing trials. A manual search in reference lists and a personal communication with experts in the field of osteopathy was also conducted to identify additional studies.

Selection criteria: Only randomized clinical trials were included. Exclusion criteria were specific back pain (disc herniation, tumors for example) and studies, which were based on single techniques. If used, all co-interventions were required to be applied to both treatment and control groups.

Data collection and analyses: Two review authors independently extracted the data of the studies using a standardized data extraction form. The updated Cochrane Risk of bias tool from 2011 was used to assess the methodological quality. With Review Manager (RevMan, Version 5.1., Nordic Cochrane Centre) the mean difference (standard mean difference for disability) and the overall effect size in a random effects model was calculated.

Main-results: The search strategy identified 30 studies. Sixteen studies were excluded, 14 studies included. Ten studies investigated the effectiveness of OMT for non-specific LBP, two studies researched the effect of OMT for back pain in pregnancy and two studies the effect of OMT for LBP in women post-partum. Forest plots revealed that OMT had a statistically significant and clinically relevant effect on pain relief (MD: -15.12, 95% CI -27.48 to -2.75) and functional status (SMD: -0.39, 95% CI -0.74 to -0.05) in chronic LBP. OMT also had significant and clinically relevant effects on pain relief (MD: -41.85, 95% CI -49.43 to -34.27) and functional status (SMD: -2.31, 95% CI -3.71 to -0.91) for post-partum LBP. No significant effect was found for pain relief (MD: -18.45, 95% CI -49.19 to 12.29) or functional status (SMD: -0.59, 95% CI -1.32 to 0.14) in LBP during pregnancy.

Conclusion: This systematic review suggests that there are clinically relevant effects of OMT for reducing pain and improving function in patients with chronic non-specific LBP and for women with LBP post-partum, but not for LBP in pregnancy. Given the few available studies for LBP in pregnancy and post-partum, these results should be viewed with caution and further research is needed to clarify the effectiveness of OMT for these patients.

The feasibility of conducting a RCT investigating the effectiveness of cranial osteopathy in infants with colic in addition to usual care: A study protocol

Anne Jakel, Phil Bright, Devan Rajendran (European School of Osteopathy, UK)

Background: Excessive Crying (Infantile Colic) is one of the most common complaints for which parents seek treatment. These otherwise healthy and well-fed infants show no signs of failure to thrive, cry without identifiable cause, fuss a lot and are hard-to-soothe.

Objective: To explore the feasibility of running a RCT that investigates the effectiveness of cranial osteopathy in addition to usual care in infants with colic.

Methods: Pragmatic randomised controlled trial, involving UK osteopaths in private practice and NHS health visitors. Parents of 60 excessively crying infants/infants with colic will be recruited by health visitors. Infants will be included into the study if they are healthy (full-term) and aged 1-7 weeks, diagnosed with excessive crying/infantile colic, and have no co-morbidities. Participants will be randomised into the usual care group or the usual care plus cranial osteopathic intervention group.

Usual NHS care will be provided by health visitors and osteopathic treatment will be carried out by experienced osteopaths in private practice.

Primary outcome measures are acceptability and feasibility of intervention procedures. Furthermore, changes in the frequency and duration of crying will be documented in a daily crying diary. Parental quality of life will also be assessed.

Discussion: This pilot investigation will provide useful information in order to further develop and adapt the current interventions and trial procedures with a view to a full-scale randomised controlled trial.

Somatic dysfunctions as consequences of wisdom teeth extraction in patients with temporomandibular disorder: a retrospective study.

Marina Lemay, Eric Girard, Olivier Merdy, Stéphane Niel (Institut des Hautes Études Ostéopathiques (IdHEO), Nantes, France

Background: Some authors suspect that wisdom tooth extraction (WTE), performed under general anesthesia, can be traumatic for the temporomandibular joint and can promote temporomandibular disorders (TMD).

Objective: We designed a retrospective study assessing whether WTE was associated with specific palpable findings and TMD symptoms.

Materials and Methods: We screened the IdHEO osteopathic clinic database for patients who came with TMD between 2010 and 2012. We constituted two groups: a group who had WTE in the past and a control group who hadn't. The two groups were matched according to age and sex ratio. 57 patient files were gathered in the WTE group and 33 in the control group. Outcome data were somatic dysfunctions and symptoms reported in the files. A chi-squared test was used to compare the two groups.

Results: The results showed statistically significant differences in the prevalence of the following dysfunctions, in patients who had undergone WTE: 2nd cervical vertebrae ($p = 0.021$), 4th thoracic vertebrae ($p = 0.002$), right and left TMJ ($p < 0.001$; $p = 0.046$ respectively) and the diaphragm ($p = 0.009$). The results also showed differences concerning the prevalence of TMD symptoms.

Conclusion: There appears to be an association between wisdom teeth extraction and prevalence of specific osteopathic dysfunctions and symptoms in patients with TMD. However, it is a limit of our study that students performed the examinations. A prospective study with a standardized examination performed by trained osteopaths will be needed to confirm our results.

Osteopathic therapy in complex treatment of children with Plano-Valgus Foot deformity

Larisa Lasovetskaya, Olga Vetrina (Russian Academy of Osteopathic Medicine, St. Petersburg)

Background: Conservative orthopedic treatment of children with plano-valgus foot deformity (PVF) does not bring the desired effect. There are reasons to believe that osteopathic therapy aimed at postural balance improvement may minimize stresses experienced by the foot and decrease its deformity.

Objective: to evaluate the expedience of osteopathic measures in complex conservative treatment of static PVF.

Materials and Methods: Forty children at the age of 5–7 years were randomly divided into two equal groups. In the control group insoles and special exercises were used. The children comprising the main group were additionally treated osteopathically (10 procedures).

Measurements: Questioner (complaints), osteopathic and orthopedic examinations, testing with "DiaSled" equipment to see changes in distribution of static and dynamic forces in the feet. The results were blindly compared in six month. Statistical validity of results (P level) was estimated with Wilcoxon criterion.

Results: The main group demonstrated statistically valid decrease in complaints of pain (from 65% of patients before to 0% after treatment, $p<0.0001$) and muscular fatigue (from 55% to 15%, $p<0.02$) in comparison with the control group (from 65% to 60% and from 50% to 40% correspondingly) as well as postural improvement in the frontal (in 60.0% in the main group versus 0% in the control group, $p<0.0001$) and sagittal (in 70.6% versus 0% correspondingly, $p<0.02$) plane. DiaSled testing revealed better ratio "heel off: toe off". There was also better weight distribution (the position of gravity center projection) after osteopathic treatment.

Conclusion: Passive support given to the foot by an insole in conjunction with muscle training is insufficient to improve the situation in children with PVF. Its combination with osteopathic treatment relieves patients' complaints alongside with postural improvement and normalization of weight bearing.

Safety incidents and treatment responses in UK osteopathy

Steven Vogel (The British School of Osteopathy), Tamar Pincus (Royal Holloway), Nadine Marlin, Tom Mars, Sandra Eldridge, Rob Froud (Barts and the London), Martin Underwood (Warwick Medical School)

Background: There is on-going debate about a possible link between manipulation and stroke in patients, and a growing interest in other treatment reactions such as increased pain. Evidence about manipulation is contradictory. There is little published information about outcomes in osteopathy.

Objective: To provide frequency data on minor to severe incidents, explore the relationship between technique and outcomes and to describe outcomes short term outcomes of care in a national sample of patients.

Materials and Methods: A survey was sent to all UK practising osteopaths. Another survey was sent to patients recruited by osteopaths. Patients were surveyed before treatment, one day and two days after treatment and at six weeks. 1,082 (27.8%) osteopaths completed the practitioner survey. 2,057 patients, recruited from 212 osteopaths, completed questionnaires before, and directly after their treatment. 1,387 patients provided data six weeks after treatment.

Results: Between 10% and 23% of patients experienced increased symptoms/pain related to their main complaint in the days directly following treatment. This was highest for new patients. At 6 weeks, 4% of patients reported temporary disability, which they attributed to osteopathic treatment. 10% of patients reported seeking further consultation for worsening symptoms associated with osteopathic care. The comparison between those that received manipulation and those that did not suggests that manipulation was not linked to worsening outcomes. In the preceding year, 4% of osteopaths reported that they had patients who experienced a range of serious events. The most common event described, was the occurrence of peripheral neurological symptoms. There were also 7 reports of stroke-like symptoms.

Conclusion: Serious incidents are rare. Transient increase in intensity of pain/symptoms is common.

Osteopathic treatment of patients with shoulder pain.

Florian Schwerla (German Academy of Osteopathy), Torsten Hinse, Markus Klosterkamp, Thomas Schmitt (Still Academy, Germany)

Objective: To evaluate the effectiveness of osteopathic treatment in patients suffering from shoulder pain.

Methods: Three trained osteopaths conducted the study in their private practices in Germany. 70 patients aged 25 to 75 years (average age 45.6 ± 13.4 years) with a history of shoulder pain for at least 6 months participated in the study. By means of external randomization 36 patients were allocated to the intervention group and 34 to the control group. In the intervention group 5 osteopathic treatments at intervals of two weeks were carried out with a follow-up after 8 weeks. The custom tailored treatment was based on osteopathic principles. The patients allocated to the control group received their osteopathic treatment after an 8-week untreated waiting period. The primary outcome parameter was pain intensity and frequency measured by VAS and Likert Scale. The secondary outcome parameters were shoulder specific pain and disability (Shoulder Pain and Disability Index, SPADI), quality of life (SF-36) and frequency of osteopathic dysfunctions.

Results: The inter-group comparison of changes revealed statistically significant improvements in support of the osteopathically treated group for the main outcome parameters maximal pain intensity (VAS: between group difference of means 41.5; 95% CI: 34.6 to 48.3; $p<0.005$) and average pain intensity (VAS: between group difference of means 40.4; 95% CI: 33.2 to 47.5; $p<0.005$). Frequency of pain decreased (Likert scale: between group difference of means 1.9; 95% CI: 1.5 to 2.3; $p<0.005$). Shoulder specific pain and disability also improved (SPADI: between group difference of means (27.2; 95% CI: 19.3 to 35.1; $p<0.005$). The follow-up assessment in the intervention group showed further improvements: maximal pain intensity decreased further by 26% and average pain intensity by 24%.

Conclusion: Five osteopathic treatments over a period of eight weeks led to statistically significant and clinically relevant positive changes of pain and disability in patients suffering from shoulder pain. These results support the findings of a former investigation (Bube & Hettasch, 2009) indicating reproducibility.

International Scientific Organising Committee

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