



Osteopathy today

9th International Congress of the German Osteopathic Association (VOD)

5th – 8th October 2006

Schlangenbad / Wiesbaden / Germany

Third International *Symposium* on Advances in Osteopathic Research

Saturday, 7th October 2006

Programme and Abstracts

Presented by
the German Academy of Osteopathy (AFO)

08.30 – 08.45

Opening *Marina Fuhrmann, President of the German Osteopathic Association (VOD)*
Florian Schwerla, German Academy of Osteopathy (AFO) Research Commission

08.45 – 09.25

Keynote lecture *Hollis King, Osteopathic Research Center, Texas, USA*
Translational Research at the Osteopathic Research Center - USA

09.20 – 10.20

Presentations Chair: *Jane Carreiro, K. L. Resch*

Can osteopathic treatments improve congenital, muscular torticollis in infants? A randomized controlled trial.
Heinz Niggemeier, Still Academy, Germany

Osteopathic diagnosis and treatment of somatic dysfunction symptoms in the early-aged children.
Irina Egorova, The Institute of Osteopathic Medicine, Saint-Petersburg, Russia

The influence of an osteopathic treatment on voiding dysfunction of female patients.
A controlled clinical trial.
Karen Alberts, PrivatSchule für Klassische Osteopathische Medizin, Germany

The Effectiveness of osteopathic treatment in the whiplash injury associated to the traditional physical therapy.
Giuseppe Antinori, Istituto Superiore di Osteopatia Milano, Italy

Therapeutic effectiveness of an osteopathic treatments of infants and children with atopic dermatitis.
A randomized controlled trial.
Martin Reckwerth, PrivatSchule für Klassische Osteopathische Medizin, Germany

10.20 – 10.50

Coffee break

10.50 – 11.20

Keynote lecture *Rene McGovern, Kirksville College of Osteopathic Medicine, USA*
The Biological Foundations of Osteopathic Principles: The Contributions of I.M. Korr

11.25 am – 12.30

Presentations Chair: *Michael Patterson, K. L. Resch*

Efficiency of early osteopathic treatment after discectomy at the level of L₄-L₅ / L₅-S₁.
Edward Miroshnichenko, Russian Academy of Osteopathic Medicine, Russia

Migraine Patients' Views of Osteopathic Treatment.
Janine Leach, Clinical Research Centre for Health Professions, University of Brighton, UK

Osteopathic treatment of somatoform autonomic dysfunction of the cardiovascular system.
A controlled clinical trial.
Susanne Sauerburger, Still Academy, Germany

A preliminary assessment of the impact of cranial osteopathy for the relief of infantile colic.
A randomized controlled trial.
Clive Hayden, Sutherland Cranial College, UK

Osteopathic treatment of women with low back pain during pregnancy. A randomized controlled trial.
Maurtis van der Linde, Still Academy, Germany

Can osteopathic treatments improve congenital, muscular torticollis in infants? A randomized controlled trial.

Heinrich Niggemeier, Harald Wilke (Still Academy, Germany)

Objective: A randomized controlled trial was carried out to test the assumption, that osteopathic treatments have a positive effect on the pathology of a congenital, muscular torticollis in infants as compared to a standard treatment (“controlled manual stretching”).

Materials and methods: Fifty infants of 2 weeks to 45 weeks of age (mean 15.4) with medically diagnosed congenital torticollis participated in the study. Infants were randomly allocated in two groups: 26 babies to the “intervention group” and 24 babies to the “control group”. Two babies dropped out in the course of the study. In the intervention group three osteopathic treatments were given at intervals of one week. Diagnosed osteopathic dysfunctions were treated according to the principles of osteopathy. Over the same period, the control group received three treatments by two physiotherapists applying “controlled manual stretching”, one treatment per week, too. Main outcome measure was a composite score: Limitation of rotation and lateral inclination (measured by a Goniometer), sternocleidomastoid tumor (by palpa-

tion), plagiocephaly / facial asymmetry (clinical diagnosis) and frequency of the line of vision to just one side (information provided by parents).

Results: Significant improvements of the torticollis pathology were found in both groups ($p < 0.001$). In the osteopathic group an improvement from 6.8 to 2.3 points on the evaluation score (-66%) was achieved, as compared to an improvement from 7.6 to 4.4 (-42%) in the control group (inter-group difference changes: $p = 0.097$). The evaluation of the secondary parameter (questionnaire to the parents) also showed major improvements and better results in the osteopathic group.

Conclusion: Torticollis improved more in the osteopathic group than in the control group, indicating clinical superiority and confirming the assumption, that the osteopathic treatment represents a reasonable alternative to the standard therapy. Further studies need to be done, including follow-ups to assess sustainability consisting of the results.

Osteopathic diagnosis and treatment of somatic dysfunction symptoms in the early-aged children.

Irina Egorova (The Institute of Osteopathic Medicine, Saint-Petersburg, Russia)

Objective: The problems of diagnosis, interpretation of somatic dysfunctions and their manifestation in the early-aged children, difficulties of detecting the cause of these disorders, difficulty and duration of correction, seriousness of increasing processes, their social and physical complications make the use of new and effective methods of diagnosis and treatment quite actual. The object of the investigation was improvement diagnosis and treatment of somatic dysfunctions.

Materials and methods: To realize the posed problems we have carried out the complex examination (neurosonographie, US-sing of cervical space, sacrum and coxofemoral joint, blood circulation with duplex scanning of main vessels of head, electromyography, somatic and neurological status, monitoring of respiratory and cardiovascular activity, osteopathic and logopedic status) and treatment of 197 full-term babies of the first three years after birth with somatic dysfunctions.

Results: Comparison of the basic clinical, instrumental and osteopathic changes has been carried out in all the age groups, proving effectiveness the osteopathic diagnosis and treatment statistically. The investigation has proved that 71% of children have natally based factors of arising of somatic dysfunctions, which in children of early age manifest clinically in different ways. Most of the children have disorders on the psychomotor and speech development levels, besides on the levels of cardiovascular, urinate, respiratory, digestive systems. It is manifested as vegetative dysfunctions.

Conclusion: As the result of the investigation it has been proved that osteopathic diagnosis and treatment are more effective than the allopathic one. It has been confirmed with clinical and instrumental methods of investigation. The osteopathic method allows finding the reason of clinical manifestation and choosing the well-grounded treatment methodic.

The Effectiveness of osteopathic treatment in the whiplash injury associated to the traditional physical therapy.

Giuseppe Antinori (Istituto Superiore di Osteopatia Milano, Italy)

Objective: This study is carried out on the effectiveness of osteopathic treatment compared with traditional therapy methods for whiplash injuries following car accidents.

Materials and methods: 52 subjects were recruited in the first 15 days after trauma, submitted to clinical examination (Range of Movement, Trigger Point) randomised, and divided into two homogeneous groups: Group A submitted to 8 treatments of traditional physical therapy (TENS and massage); Group B submitted to 8 osteopathic treatments in addition to traditional physical therapy. Before first and last treatments patients had compile VAS, neck pain questionnaire and the Oswestry low back pain questionnaire, and their joint mobility was estimated with a goniometer.

Results: The improvement achieved was highlighted in both groups of patients, but the benefit for patients submitted to osteopathic treatment (group B) was statistically significant in

almost all parameters taken into account for examination.

The neck pain in the group B is improved of 65% against the 37% of the group A with a $p=0,052$. The results of the questionnaires on the neck and low back pain has reached a remarkable statistic value ($p=0,003$ and $p=0,002$). The Range of Movement has underlined improvements in all the parameters of movement taken in examination with a $p<0,05$.

Conclusion: As a consequence, a global manual therapy approach (osteopathic treatment in association with traditional physical therapy) to a whiplash injury syndrome, compared with traditional methods mainly applied locally in the cervical region, is shown to be more effective in restoring the patient's health conditions.

Therapeutic effectiveness of an osteopathic treatment of infants and children with atopic dermatitis. A randomized controlled trial.

Irene Özbay, Martin Reckwerth (PrivatSchule für Klassische Osteopathische Medizin, Germany)

Objective: To test the hypothesis that the symptomatology of atopic dermatitis of infants and children can be positively influenced by an individualized osteopathic treatment, a randomized, controlled trial of effectiveness was performed.

Materials and methods: Thirty-eight children in the age of two months to 10.5 years (mean 4.2 years) with medically diagnosed atopic dermatitis were randomly allocated into two groups: 19 children to the treatment group and 19 children to the control group. One child of the treatment group dropped out because of acute otitis media. The children of the treatment group were treated three times in intervals of two to three weeks. Actual osteopathic dysfunctions were diagnosed at every session and treatments were given according to osteopathic principles. The children of the control group remained untreated for the time of the study. As "basic therapy" ointments free of active ingredients and oil bathes were accepted/allowed while cortisone therapy and/or similar interventions were excluded. Improvements of the degree

of severity and of the symptomatology of the atopic dermatitis were qualified with the SCORAD-Index of the "European Task Force on Atopic Dermatitis".

Results: In the treatment group the SCORAD-Index dropped from 43 to 12 points (mean) which corresponds to an improvement of 72 % ($p<0.0005$, 95% CI=20.9 to 40.7). In the control group there was only little improvement of 8.5 % (95% CI=-2.5 to 8.7). The intergroup difference of changes indicated clear superiority of the treatment group ($p<0.0005$, 95% CI= 6.7 to 38.7).

Conclusion: Considering the positive results it is important to carry out follow-up studies to evaluate whether findings can be reproduced and are sustainable respectively, to strengthen the evidence that an osteopathic treatment is effective as a supplement to classic basis therapy of atopic dermatitis.

Efficiency of early osteopathic treatment after microdiskectomy at the level of L₄ - L₅ / L₅ - S₁.

Edward Miroshnichenko (Russian Academy of Osteopathic Medicine, Russia)

Objective: The study was designed to demonstrate the efficiency of osteopathic therapy in managing post-operative pain after endoscopic removal of an intervertebral lumbar disk.

Materials and methods: The main (18 subjects) and control (20 subjects) groups were randomly selected out of patients who had recently undergone microdiskectomy. The patients in the control group were treated according to hospital standards. Osteopathic treatment in the main group was directed at elimination/reduction of muscle spasm and restoration of normal joint mobility through BLT, MET, functional techniques, etc. All patients were evaluated with the help of neurological examination and Oswestry Pain Questionnaire before the start of treatment and after 6–8 weeks. The results were evaluated statistically according to Mann-Whitney criterion.

Results: Osteopathic treatment eliminated pain in 60.0% of patients and diminished it in 23.3%. There was a four-fold decrease of frequency of psoas, piriformis and gluteal muscle syndromes and three-fold decrease of ilio-tibial tract reaction. This effect was achieved through muscle spasm reduction and improved circulation. Paravertebral muscles appeared to be the most “stubborn” because of their surgical trauma. Positive changes initiated by osteopathic treatment found their representation in Oswestry Disability Index. The differences between the main and control groups were statistically significant according to Mann-Whitney criterion ($p=0.0016$; $U=72.5$).

Conclusion: Osteopathic treatment after diskectomy gave significantly better results in comparison with the control group and may be recommended to patients after spinal surgery.

Migraine Patients' Views of Osteopathic Treatment.

Janine Leach (Clinical Research Centre for Health Professions, University of Brighton, UK)

Objective: To conduct a pilot study to find out why migraine sufferers seek osteopathic treatment, and their perceptions of treatment.

Materials and methods: A semi-structured questionnaire was posted on the web site and in the Newsletter of a large UK migraine sufferer support organisation. Members were invited to participate in the survey if they had used osteopathy for their headaches in the past 5 years.

Results: 44 members voluntarily responded. 100% suffered migraine headaches. Most had severe symptoms (61% had had migraine symptoms longer than 30 years; 20% had weekly episodes). Satisfaction with osteopathic treatment was 84%. 59% had experienced positive changes in their headache which they considered were due to treatment. 48% had changed medication, and 57% were continuing with treatment.

Qualitative analysis of the free text responses showed that when

the respondents' realistically low expectations of a benefit from treatment were exceeded, the reaction was often strongly positive (“I now feel more in control of my migraines and not that they define my life”; “she is an angel! She can get me out of my pit of pain”)

When their expectations of the therapeutic relationship were not met, the reactions were strongly negative (“he gave me false hope”; “is what he said fiction?”; “I felt I might as well put my money in the gutter”).

Conclusion: The study highlighted the need for education of osteopaths about of long term chronic headaches. More research evidence is needed about the potential benefit to patients.

A preliminary assessment of the impact of cranial osteopathy for the relief of infantile colic.

Clive Hayden, Sutherland Cranial College, UK

Brenda Mullinger, European School of Osteopathy, Maidstone, UK

Objective: The purpose of this randomised, controlled prospective study was to evaluate the efficacy of Cranial Osteopathy on the treatment of colicky infants under the age of 12 weeks.

Material and methods: 28 eligible infants were recruited and randomised into control and test groups. An initial questionnaire and examination for screening were used, followed by parents recording results using daily diaries. All infants were seen for 5 visits. Student's t-test (paired), and 2-sample t-test were used to calculate the significance of changes in crying and sleep patterns. In addition regression and correlation analyses were used to explore the relationship between crying and sleep time.

Results: Results showed a positive response to treatment for all infants in the test group, with an improvement of $p > 0.001$ for crying and $p > 0.002$ for sleeping as compared to insignificant improvements of $p > 0.07$ and $p > 0.03$ respectively in the control group. There was a significant reciprocal correlation of $p > 0.001$ between sleeping and crying in the test group, compared to

$p > 0.125$ in the control group.

Conclusion: This pilot study showed a beneficial effect of cranial osteopathic manipulation for infants suffering from infantile colic. A larger number, double blind, multi-centred trial is warranted.

The influence of osteopathic treatment on voiding dysfunction of female patients. A controlled clinical study.

Karen Alberts (PrivatSchule für Klassische Osteopathische Medizin, Germany)

Britta Eckmann, Bettina Mertens (Still Academy, Germany)

Objective: To test the hypothesis that an individualized osteopathic treatment has a positive impact on the severity of voiding dysfunction of female patients, a controlled trial was conducted.

Materials and methods: The sample of the study comprised of 45 female patients (average age 46 years) with an urologically diagnosed voiding dysfunction. After a baseline assessment followed by an intervention-free interval of six weeks ("waiting-list period") three osteopathic interventions were carried out within six weeks time. There were no drop-outs. Dysfunctions were treated according to osteopathic principles. Primary outcome parameter was the improvement of the severity of symptoms as evaluated by the American Urological Association Symptom Index Score (AUASI).

Results: The severity of symptoms improved between the beginning and end of treatment phase by 51% ($p < 0.001$ 95% CI=8.33 to 11.63), while there were no changes observed during the wai-

ting period. The direct comparison between waiting period and intervention period also showed a statistically highly significant improvement ($p < 0.001$). There was a similar improvement of both retention capacity and voiding symptomatology.

Conclusion: Given the limited possibilities to treat women suffering from voiding dysfunction the results of this study give first yet preliminary evidence that an osteopathic treatment may be a promising option. Further studies are required to validate the results and to investigate whether treatment effects last.

Osteopathic treatment of women with low back pain during pregnancy. A randomized controlled trial.

Rob Peters, [Maurits van der Linde](#) (Still Academy, Germany)

Objective: To assess the effectiveness of osteopathic treatments on pregnancy related pain in the pelvic and/or lumbar area. This study was designed as a randomized controlled trial using a “waiting list design”

Materials and methods: Sixty pregnant women with pain in the pelvic and/or lumbar area (average: 30 years of age, 25th week of pregnancy) participated in the study. The pain symptomatology had first to occur in the time of pregnancy and had to be present for at least one week ($VAS \geq 3$). Thirty women were randomly allocated to the intervention group and thirty to the control group. During the trial three patients of the control group dropped out. The intervention group received four osteopathic treatments in weekly intervals. The patients of the control group did not receive any treatment during that time. They received osteopathic treatment only 5 weeks after entering the study, which was not relevant for the trial. The osteopathic dysfunctions in the cranial, visceral and parietal system, found on the day of treatment, were diagnosed and treated individually. The primary parameter was the greatest pain intensity within the previous 3 days, measured at a

visual analogue scale (VAS). Secondary outcome was the impact of back pain on every day activities, measured with the Quebec Back Pain Disability Scale.

Results: In the intervention group, pain intensity as measured on VAS, dropped from 6.5 to 2.1, which corresponds to an improvement of 68% ($p < 0.0005$, 95% CI=3.5 to 5.2). In the control group no improvement occurred during that time ($p = 0.404$, 95% CI= -1.0 to 0.4). Inter-group difference of changes indicated clear superiority of the osteopathic treatment ($p < 0.0005$). The Quebec Back Pain Disability Scale improved by 28% in the intervention group ($p = 0.001$, 95% CI=4.9 to 17.3), and worsened in the control group by 20% ($p < 0.0005$, 95% CI=-12.9 to -4.6).

Conclusion: Four osteopathic treatments, over a period of five weeks, led to a clinically relevant improvement of the pain symptomatology and of the activities of daily life of pregnant women with pain in the pelvic and/or lumbar area. In further studies it might be useful to document the sustainability of the effect over the remaining period of pregnancy.

Osteopathic treatment of somatoform autonomic dysfunction of the cardiovascular system.

Susanne Sauerburger, [Marc Zorgman](#) (Still Academy, Germany)

Objective: Functional cardiovascular dysfunctions are among the most common illnesses. We are concerned here with patients who often show strong cardiovascular symptoms even though no organic problems can be diagnosed in medical examinations.

A controlled intervention study based on the waiting list design was used to address the question of whether the osteopathic treatment of patients with somatoform autonomic dysfunctions of the cardiovascular system (CFD) improves the symptoms.

Materials and methods: Participating in the study were thirty patients aged between 20 and 50 years with CFD. Having had no treatment over the previous six weeks, the participants received three osteopathic treatments in course of the study. These treatments were given at fourteen-day intervals. In the evaluation we compared the treatment-free period with the period of osteopathic treatments. The primary parameters were the patients' self-evaluation of their physical symptoms and changes in those symp-

toms as measured using a SOMS questionnaire (Screening for Somatoform Symptoms). The secondary parameters were the intensity of the pain measured against the visual analogue scale and the frequency of occurrence.

Results: A direct comparison between the waiting period and treatment period revealed a statistical significance in favour of osteopathic treatment ($p < 0.001$). Clinically relevant improvements were recorded over time. Depending on the evaluation method, the SMOS scores ranged from 44% to 59% ($p < 0.001$). The secondary parameters also showed this positive trend, with intensity of the complaints falling by 71% and their frequency by 47%.

Conclusion: Just three osteopathic treatments over a period of six weeks resulted in a positive impact on CFD. Further randomised controlled studies are needed, and the sustainability of the successful treatment should be monitored with a follow-up study.

International Scientific Organising Committee

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