

## **Abstract**

**Design:** Die Studie ist eine randomisierte kontrollierte Pilotstudie im Parallelgruppendesign.

**Objective:** Diese Studie überprüfte die Möglichkeit zur Durchführung einer Folgestudie. Aufgrund der anatomischen, funktionellen und neuralen Interaktionen bei der Adaptation während der Schwangerschaft spielen die visceralen Strukturen eine wesentliche Rolle im Zusammenhang zwischen intrapelvinen Dysfunktionen und lumbopelvinen Schmerzen. Es wurde die Wirksamkeit von osteopathischer Behandlung einschließlich vaginaler Techniken mit dem Einfluss alleiniger osteopathischer Behandlung auf schwangerschaftsbedingte Rückenschmerzen, unter denen 50% der Schwangeren leiden, verglichen.

**Methods:** 10 Patientinnen wurden zwischen der 30. und 36. Schwangerschaftswoche rekrutiert und in zwei Gruppen unterteilt. Beide Gruppen wurden dreimal im Abstand von fünf Tagen individuell osteopathisch behandelt. Die Interventionsgruppe wurde zusätzlich in der zweiten und dritten Behandlung vaginal behandelt. Messparameter waren die visuelle Analogskala (VAS) für die Schmerzintensität, der Oswestry-Disability-Index (ODI) für die Lebensqualität und der Inklinometer (Dr.Rippstein) für die Beweglichkeit der Lendenwirbelsäule.

**Results:** In der Kontrollgruppe wurde die Schmerzintensität um 4,54 Punkte von 6,22 auf 1,44 reduziert, der ODI verringerte sich um 4,6 Punkte von 15,4 auf 10,8 Punkte und das lumbale Bewegungsausmaß verbesserte sich um 23,2° von 22,8° auf 46°. In der Interventionsgruppe sank der Wert der Schmerzintensität um 5,54 Punkte von 6,74 auf 1,2 Punkte. Dies entsprach einer deutlichen Schmerzverringerung. Der ODI sank um 2,6 Punkte von 16,4 auf 13,8 und die Beweglichkeit der LWS stieg um 19° von 28,8° auf 47,8°.

**Conclusions:** In beiden Gruppen konnte ein positiver Einfluss auf Schmerz, Lebensqualität und Lendenwirbelsäulenbeweglichkeit nachgewiesen werden. Einen deutlich größeren Einfluss verzeichnete die Interventionsgruppe auf die Schmerzintensität. Es zeigte sich eine positive Tendenz in der Interventionsgruppe, die Lebensqualität und die Lendenwirbelsäulenbeweglichkeit zu verbessern. Folgestudien in dem Bereich der Osteopathie und insbesondere in dem Bereich der vaginalen Behandlung während der Schwangerschaft sind wünschenswert.

**Keywords:** Osteopathie, Schwangerschaft, lumbopelviner Rückenschmerz, vaginale Techniken, interne Behandlung, VAS (Visuelle Analogskala), ODI (Oswestry-Disability-Index), Inklinometer.

## **Abstract**

**Design:** The study is a pilot parallel group design randomized controlled trial.

**Objective:** This study evaluated the feasibility of conducting a full scale study. Due to anatomical, functional and neural interactions during pregnancy, dysfunctions of the pelvic visceral structures assume interference to lumbopelvic pain. The study compared the efficacy of osteopathic techniques, including vaginal techniques and the efficacy of osteopathic techniques only for the treatment of pregnancy-related low back pain common to 50% of pregnant women.

**Methods:** 10 patients were recruited between the 30. and 36. gestation week and allocated into one control and one intervention group. Both groups received three sessions of individualized osteopathic treatment at an interval of five days. In the second and third session of the intervention group internal techniques were used during osteopathic treatment. Back pain intensity was assessed by Visual Analogue Scale, subjective disability index (VAS) was measured by Oswestry-Low-Back-Disability-Questionnaire (ODI) and range of motion in the lumbar spine were recorded by inclinometer (Dr.Rippstein).

**Results:** The pain intensity of the control group decreased by 4.54 points from 6.22 points in the beginning to 1.44. The ODI decreased by 4.6 points from 15.4 to 10.8 points and the lumbar motion increased by 23.2° from 22.8° to 46°. The value of pain intensity of the intervention group decreased by 5.54 points from 6.74 to 1.2 points. This showed an obvious decline of pain. The ODI was lowered by 2.6 points from 16.4 to 13.8 points and the flexibility of the LWS increased by 19° from 28.8° to 47.8°.

**Conclusions:** Both treatment groups proved to be effective in reducing pain, increasing quality of living and increasing lumbar motion in pregnant women. The intervention group attained significantly better results in reducing pain intensity and suggested a positive influence in improving quality of life and increasing lumbar motion. Ongoing research is desirable to establish osteopathy and especially vaginal treatment during pregnancy.

**Keywords:** Osteopathy, pregnancy, low back pain, vaginal techniques, internal treatment, VAS (Visual Analogue Scale), ODI (Oswestry-Disability-Index), Inclinometer.

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