

# **Does individual osteopathic treatment influence pain intensity and quality of life in women suffering from vulvodynia? A pre-post study.**

**Objective:** Evaluation of effectiveness of individual custom tailored osteopathic treatment in women suffering from vulvodynia.

**Study design:** Pre-post study.

**Methods:** Two trained osteopaths (Still-Academy Osteopathie GmbH) conducted the study in their private practices in Berlin, Leipzig and Stralsund (Germany). 30 patients aged 23 to 79 years (average age  $39.9 \pm 16.8$  years) with the medical diagnosis "vulvodynia" were included in the study. The symptom complex of vulvodynia had to be present constantly for at least 6 months and had to be associated with a pain intensity of 40% on a visual analogue scale (VAS). After a four-weeks control phase the intervention phase followed with six osteopathic treatments at intervals of three weeks. The custom tailored treatment was based on osteopathic principles. A follow-up evaluation was conducted three months after the end of study. Outcome parameters were pain intensity (VAS) and disease specific quality of life (SKINDEX-29 with three subscales: emotions, functioning, and symptoms).

**Results:** Pain intensity improved during control and intervention period (difference of means 16.1; 95% CI: 1.2 to 31;  $p=0.03$ ). Decrease during control phase was 6% (difference of means -4.1; 95% CI: -10.7 to 2.5;  $p=0.2$ ) and during intervention phase 31% (difference of means -19.1; 95% CI: -28.9 to -9.4;  $p<0.001$ ). Comparing the both study periods, the three SKINDEX-29 subscales improved during intervention period in a larger extent. Subscale emotions improved during intervention period by 16% (difference of means -0.5; 95% CI: -0.8 to -0.2;  $p=0.002$ ); subscale functioning by 18% (difference of means -0.5; 95% CI: -0.8 to -0.2;  $p=0.001$ ); and subscale symptoms by 13% (difference of means -0.4; 95% CI: -0.7 to -0.1;  $p=0.006$ ). Pain intensity and disease specific quality of life showed further respectively persistent improvements at follow-up. The main osteopathic dysfunctions were identified in the pelvic floor area including the adjacent organs (bladder and colon) followed by dysfunctions of the thoracic spine and diaphragm.

**Conclusion:** Six osteopathic treatments over a period of eighteen weeks led to statistically significant positive changes of pain intensity and disease specific quality of life in women suffering from vulvodynia. Further studies including larger patients samples and a randomized controlled design are warranted.