TITLE: The incidence of spinal dysfunction in a sample of premenstrual syndrome sufferers

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Background and Objective:

As part of a randomised clinical trial to determine the efficacy of chiropractic therapy on premenstrual syndrome (PMS), subjects were evaluated for initial underlying spinal dysfunction.

Method:

Volunteers with PMS that responded to calls to participate in a clinical trial underwent an initial interview and examination. Each subject completed a modified Moos PMS Distress Questionnaire, a full history, physical examination and spinal examination (including Oswestry and Neck Disability questionnaires for non PMS conditions). The physical examination was conducted by a fully qualified medical practitioner, and the spinal examination by two fully qualified registered chiropractors.A total of 54 subjects were, as result of the initial interview, accepted into the study as having true PMS according to the DMS-IV-R criteria, and having no absolute contraindications to spinal manipulative therapy.
The data collected was entered into an Excel 5 spreadsheet, and contingency tables created. The data was analysed using Chi-Squared tests; the statistical significance being set at $p<0.05$.

Results:

The parameters analysed as indicators of spinal dysfunction were previous history of spinal conditions (non-PMS), spinal examination findings (ROM, orthopaedic tests, spinal tenderness, muscle weakness, and functional short leg), and functional/disability levels (Oswestry, NDI). All subjects showed no neurological deficits or pathology.

The average age was 35.7 with a range of 20-47, with 11.1% on the contraceptive pill and 17.6% on some form of minor medication. About one third smoked and 17.6% used alcohol moderately or occasionally, while 44.4% were involved in some form of regular exercise.

Spinal history: a history of non PMS related spinal problems was taken for the previous two years with 81.4% of subjects having experienced some form of spinal problems. The problems were neck (48.2%), low back pain (53.8%) and head-ache (31.5%) with 40.1% of these having multiple problems. Of the total sample, 57.4% had had some chiropractic treatment in the past

two years, although none were currently receiving, or had received in the last 3 months, any form of chiropractic therapy.

Spinal examination: reduced or painful movement was experienced in the cervical spine by 31.5% of all subjects, and in the low back by 20.8%. One or more positive orthopaedic tests were shown in the cervical region by 22.2% with 44.4% having positive tests for the low back. Spinal tenderness was quite prevalent in all regions (>74% in cervical,thoracic and lumbar/pelvic regions). Minor muscle weakness was present in 22.6% of subjects, with 55.6% having a functional short leg.
Disability: non- PMS related low back and neck disability ratings were measured using the Oswestry and NDI questionnaires respectively. The results were for the Oswestry and NDI respectively, zero disability 26.3% and 21.1%, minimal disability 47.4% and 47.4%, moderate disability 21.1% and 26.3%, and severe disability 5.3% for both indices.
PMS symptoms: although the majority of PMS symptoms reported were either physical (eg breast tenderness, cramps, bloating), or behavioural/mood (eg depression, irritability, anger, low concentration), 79.2% of the subjects reported either low back pain (20.7%), headache (24.5%) or a combination of these two symptoms (34%) as major PMS symptoms. No other spinal related symptoms were reported as a PMS symptoms, however some general joint pain was occasionally experienced.

Conclusions:

The results indicate a significant level of spinal dysfunction is present in the sample of PMS sufferers in the sample. In total, twelve parameters of spinal dysfunction were measured and all subjects had a positive return (ie indicating possible spinal dysfunction), for at least one of the parameters. The average number of positive response was 5.4 indices with a history of spinal complaints, and spinal tenderness being very prevalent. This would suggest that PMS sufferers are certainly suitable subjects for chiropractic therapy.

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