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Osteopathic Manipulative Medicine in Pregnancy

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BACKGROUND

Pregnant women experience extensive physiologic and structural changes during pregnancy. Osteopathic manipulative medicine (OMM) involves the examination of the whole patient, including body, mind, and spirit. This involves treatment of any stresses placed on the body, including the structural changes in the maternal body. Clinical studies thus far on osteopathic manipulative medicine in pregnancy have shown that when used during pregnancy, it improves musculoskeletal pain such as low back pain, and may positively affect some labor and delivery outcomes, including the length of labor, perineal lacerations, operative vaginal delivery, meconium-stained fluid, and infants' APGAR scores.

Hypothesis: We hypothesize that the use of osteopathic manipulative medicine in pregnancy increases the likelihood of a vaginal delivery versus cesarean section.

METHODS

A retrospective chart review was performed from 2013-2016 and participants were selected based on the inclusion criteria, which included nulliparous women between ages 15-35, delivery at full term, and pregnancies without complications or labeled high risk. This resulted in 42 participants in the OMM treatment group and 58 participants in the control group. Univariate statistics and Chi-square test, as well as descriptive statistics were used for data analysis.



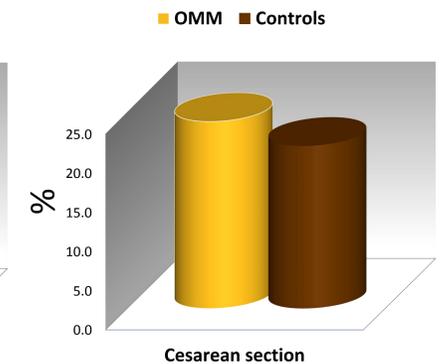
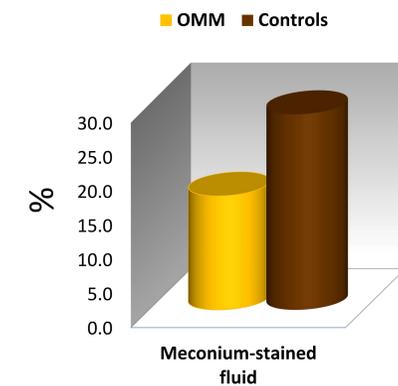
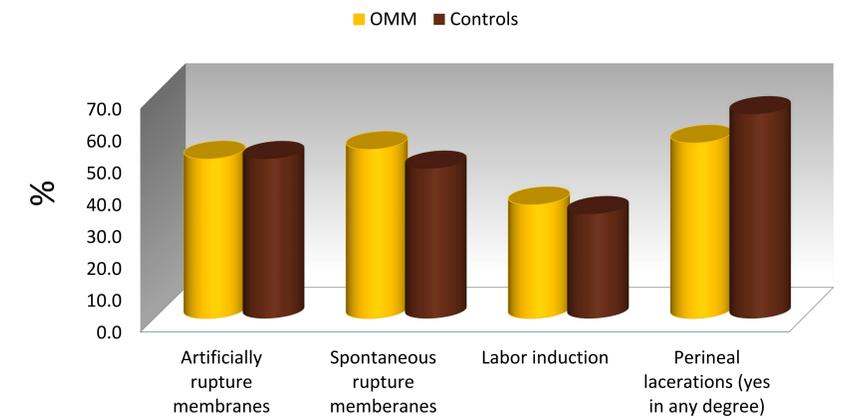
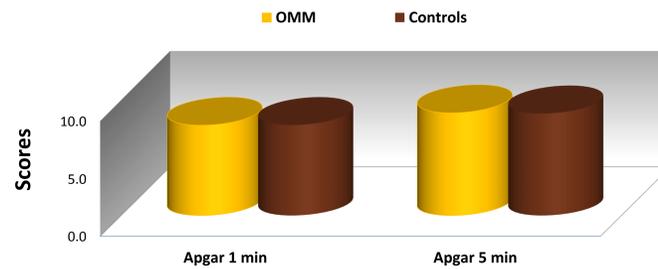
Ⓢ Perpendicular myofascial release of the latissimus paravertebral muscle - left, right

RESULTS

Patients with OMM and Controls			
	OMM n=42	Controls n=58	P-Value
Age (yr.)	26.93 ± 6.01	26.14 ± 5.08	NS
BMI (kg/m ²)	32.64 ± 6.54	29.81 ± 5.37	0.02
Number of OMM visits	2.60 ± 1.19	0	NS
Smoking n(%)	5 (11.9)	13 (22.41)	NS

Patients in OMM group had higher BMI than the controls.

Comparing the outcomes between OMM and controls



SUMMARY

- ✧ OMM treatments during pregnancy (total of 1-6 time and mean ± SD 1.1 ± 1.5) did not appear to have an impact on the type of delivery or infants' Apgar scores as comparing to the controls.
- ✧ The BMI of participants in the treatment group was higher than the control group (p<0.05).
- ✧ Meconium-stained fluid and perineal lacerations were decreased in the OMM treatment group compared to the control group, however this was not statistically significant.
- ✧ When comparing the age of participants in both groups, there was no statistically significant difference found between the two groups (P value 0.49).

CONCLUSIONS

A minimal number of OMM treatments that were performed during the pregnancies of the patients included in this study did not influence birth outcomes as expected. OMM during pregnancy did not appear to have an impact on the mode of delivery or infants APGAR scores. Meconium stained fluid and perineal lacerations were decreased in the OMM treatment group compared to the control group, however this did not appear to be statistically significant.

Tobacco use was more commonly seen in the participants of the control group when compared to the OMM treatment group. The BMI of participants in the treatment group was higher than the control group. These results indicate that various lifestyle choices that were not evaluated in this study, such as mood, stress, exercise, diet, and illicit drug use, may have an impact on type of delivery and other delivery outcomes investigated in this study.