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Text of ABSTRACT

Introduction:

The study of somatic dysfunctions is a milestone for the osteopathic medicine and the ability to detect them precisely, is a fundamental skill for osteopaths. Previous study began to explore the prevalence of somatic dysfunction in newborns [1] trying to get the basis for a newborns' osteopathic dysfunction database, significantly important for understanding a possible prediction role of somatic dysfunctions. Aim of the study was to evaluate the prevalence of somatic dysfunctions and the correlation inter-operators in a sample of newborns.

Methods:

220 subjects, admitted at the NICU after birth, entered in the study. After the application of eligibility criteria, 174 were enrolled and divided in two groups: preterm infants, gestational age <37, (N=101) and term infants, gestational age >37, (N=73). After enrollment, both groups were randomized in: study group, receiving osteopathic evaluation and treatment, and control group, receiving only osteopathic evaluation. Osteopathic procedures were performed 2 per week by two different groups of practitioners. The study period was 20 months. Osteopathic dysfunctions were considered both singularly and in terms of grouping into classes: cranium, column, thorax, pelvis and arms.

Descriptive analysis, test of association, based on chi-square test, and test of correlation, based on Cohen's test, were performed.

Results:

In preterm group the highest percentage of somatic dysfunction was observed on L5-S1 compression (47%). While in term group, the highest percentage was observed on SBS compression (55%). The highest prevalence of osteopathic treatments was found on the L5-S1 junction for preterm group, instead, on the lower dorsal column (T9-T10-T11-T12) for terms group.

The k index correlation between the two groups of osteopaths was: cranium=0.52 (p<0.01), column=0.66 (p<0.01), pelvis=0.75 (p<0.001) and thorax=0.38 (p<0.02).

No significant association between groups and dysfunctions, adjusting for gestational age, weight at birth and gender.

Conclusions:

The study showed a statistically significant inter-rate reliability between osteopaths and added new data concerning the prevalence of somatic dysfunctions in newborns. Further studies, with longer follow-up, are needed to correlate somatic dysfunctions to the onset of specific diseases.

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