Clinical Research

Title- Osteo-Cranial Force (OCF). A literature Review

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Introduction

Over the years there have been a number of reports of the clinical applications of **Osteo Cranial Force (OCF).** Some of the earliest appeared in the OCF text by Magoun[1,p.112] in charts done by G. A. Laughlin, DO which showed an apparently reduced sweat production before and after application of the technique known as the compression of the fourth ventricle (CV_4). This appeared to reflect a decrease in sympathetic nervous system activity, which has also been demonstrated in more recent research.

It is significant to note that OCF treatment is like any other modality of OMT in the hands of a capable osteopathic practitioner. It is the specific attention to the anatomy of the particular part of the body being manipulated that facilitates the OMT and enhances the probability of benefit.

Furthermore, it is the knowledge of anatomy and especially neuroanatomy in the cranial area that provides the basis for a strong rationale for how OCF might be beneficial. This point is exceeding well illustrated in a series of articles by Magoun on the theme of entrapment neuropathy in the cranium.[6-8] That is, if cranial bone motion exists and OCF maneuvers can affect cranial bone and intracranial structures such as cranial nerves, then there may be great utility in applying such technique in clinical practice.
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From a philosophy of science perspective, appropriate application of OCF based on systematic observation of anatomic relationships palpated by the osteopathic Practitioners and correlated with changes in the patient's symptoms is indeed scientific procedure. It remains for the osteopathic profession to develop documentation procedures which will facilitate collection of this type of data from many providers utilizing OCF and thereby obtain large scale population data appropriate for analysis. In the meantime, those who utilize OCF in clinical practice are following a tried and true scientific methodology in the application of OCF. That is practice based on proof of benefit to patients as reported by many clinicians on many patients. This is the principle of appeal to authority and precedence of success by practice.

.[12] Clinical research on the application of OMT in prenatal care has a long history too.As early as 1911 studies on hundreds of women who received prenatal OMT were

published, and benefits with shorter durations of labor and fewer complications were reported.

[13] In a study where the application of OCF was not the only OMT modality applied in prenatal care, but was included in OMT delivered to virtually every patient, the results were statistically significant (N = 321 patients) for fewer preterm deliveries and fewer cases of meconium-stained amniotic fluid.[14]

A promising pilot study that awaits a larger follow-up was done by Gitlin and Wolf[15] on women who were overdue to deliver and had not yet perceived uterine contractions.

The children who received the OCF were significantly higher in virtually all categories of academic performance compared to the comparable population of children who did not receive OCF. In the chapter on General Pediatrics in the *Foundations for Osteopathic Medicine*[21] the authors,three of whom use OCF in their medical practices, describe the benefits of OCF in the treatment of pediatric diseases. Respiratory conditions such as asthma, pneumonia, bronchiolitis, and newborn diaphragm restrictions are described as responding favorably to OCF.
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Effects of OCF on Vascular and Autonomic Nervous System Functions
A commonly applied OCF technique called the “venous sinus technique” has been reported by many who practice OCF to be successful in the relief of headache and sinus congestion symptoms.

A study by Huard suggests that the efficacy of this techniques may be in the restoration of optimal intracranial vascular flow.[27] Huard applied the venous sinus technique to 39 subjects, with 39 others receiving light touch only, and another group of 39 subjects received no touch at all. The outcome measure was a radiology procedure called the encephalogram which utilized ultrasound technology to record blood flow. Huard’s results showed that the subjects receiving the OCF venus sinus technique had demonstrably improved hemodynamic perfusion, that is improved blood flow, in the area of the cranial base.

Summary

OCF clinical research compares favorably with the amount of clinical research done on the other commonly used OMT modalities. From a technical perspective, the application of OCF takes longer than other OMT modalities and is often not applied due to time restraints. Critics of OCF cite lack of clinical evidence for benefits thereof and raise the question of risk-benefit ratio.

There has never been a report of an adverse event from the application of OCF, and the improvement reported in the reviewed clinical articles on OCF is certainly suggestive, if not compelling, evidence of benefit for OCF. The evidence presented is certainly

sufficient justification to continue the use of OCF in clinical practice and it is hoped will garner support for more research to be done.

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