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Uncontrolled Asthma: Osteopathic Manipulative Treatment Applied in a Rural Setting

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Asthma is a clinical entity with a constellation of symptoms that include wheezing, shortness of breath, chest tightness and cough.^{1, 2} Elucidated pathways have revealed components of inflammation and bronchoconstriction of the airways that lead to

whites and 160% higher than Hispanics.

Pathophysiology

Asthma as a disease has been characterized by intermittent

intermittent airway obstruction causing difficulties in breathing

airway obstruction, also termed reversible airway obstruction. It

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via the concept of the facilitated segment. Specifically, viscerosomatic reflexes of the sympathetic nervous system have been identified in the region of T1-6

by using myofascial release (MFR) and balanced ligamentous tension (BLT) to address thoracic cage and diaphragm impediments, one can restore optimal diaphragmatic motion for that patient. Additionally, an articulatory technique such

Another, important consideration is the perpetually dynamic interplay between the autonomic (sympathetic and parasympathetic) nervous system. The sympathetic nerve fibers of the lungs arise from the sympathetic chain ganglion at the level of T1-6. While the parasympathetic nerve fibers travel within the vagus nerve as it exits the jugular foramen of the cranial vault and makes its way down the cervical region and through the thoracic inlet, where it then diverges onto the lungs. Therefore, while the osteopathic physician may alter sympathetic outflow by directly working on the thoracic vertebrae, a change in the parasympathetic outflow will require intervention above the thorax in the cervical region, specifically

as "rib raising" will help to mobilize the thoracic cage, as well as, stimulate the sympathetic chain ganglion and alter sympathetic outflow to the visceral organs. Similarly, using soft tissue techniques such as paraspinal inhibition of the cervical region and a suboccipital release will alter the parasympathetic outflow. This dynamic interplay will promote a balancing between the bronchodilation and bronchoconstriction and pulmonary secretions controlled by the autonomic nervous input. Finally, osteopathy in the cranial field has been shown to be extremely effective in patients who have suffered a hard fall with mechanical injuries to the head or sacrum that have triggered an asthma attack.¹⁹

the atlantoccipital joint (C1) and atlantoaxial joint (C2) level, as well as the cranial vault.

Evincing case study

Discussion

Given its multi-factorial nature, asthma is difficult to treat and requires a comprehensive evaluation on the part of the clinician. A multifaceted approach, including diet, allergen prevention, medication, and alternative modalities such as Osteopathic Manipulative Treatment may work synergistically to control the symptoms of an asthmatic patient and potentially modify the severity. It has been the experience of this author that Osteopathic modalities applied to asthmatic patients during an exacerbation has allowed for rapid resolution of symptoms, prior to and during the administration of any medication. The clinical experience gained from this case study has inspired

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this author to develop a current research project on the efficacy of Osteopathic Manipulative Treatment in the asthmatic

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