## LETTER TO THE EDITOR

## VISCERAL MOBILIZATION: STATE OF ART FOR SYSTEMIC PATHOLOGIES MANAGEMENT

The global disease burden has evident about significant increase in many systemic diseases such as central obesity, diabetes mellitus and atherosclerosis. The concept of invasive and pharmacological management of various systemic diseases has seen a paradigm shift towards conservative management techniques like physical therapy in the last two decades for multiple conditions like type II Diabetes Mellitus, Complex Regional Pain Syndrome Type I, Atherosclerosis, Hypertension and Peripheral Arterial Disease.

Multiple exercise guidelines have been created and customized and implemented worldwide to address discussed pathologies. However, it has been observed that the effects of exercises are short term requiring a life time commitment to continue the exercise regimen. Henceforth, the idea of visceral mobilization which is a hands-on treatment method implemented to mobilize the organs brought forward with pronounced systemic effects including angiogenesis and healing of aged or injured tissue along with symptomatic management<sup>1</sup>.

A wide range of systemic effects have been observed with the spinal manipulation and soft tissue mobilization leading to the confirmation of physiological effectiveness of visceral mobilization. Spinal manipulation produces changes in muscle spindle response, nocifensive reflex response and neuronal activity, electromyography, and immunologic response. Further, it is observed to produce physiological changes including autonomic, circulatory, lymphatic and immunologic functions, visceral response, gene expression, neuroanatomy, function and pathology, and cellular response to in vitro simulated massage<sup>2</sup>. Further, Bindege webs massage, connective tissue (reflexogenie) massage" and Soft Tissue Mobilization (STM) are reported to mobilize skin fluids, reduce edema, increase skin temperature and provide analgesic effects in patients with systemic scelerosis<sup>3</sup>. Similar analgesic responses along with anti-oxidative effects were observed in patients with complex regional pain syndrome via application of manual therapy<sup>4</sup>. Significant decrease in blood pressure and heart rates were observed with the cervical and thoracic manipulation.

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Similarly, statistically significant difference was observed in chronic constipation after visceral mobilization within a week in comparison to long term conservative management<sup>5</sup>. Interestingly, by increasing the motion of the thoracic cage, mobilize the ribs and thoracic portion of the spine, in turn enhancing arterial supply and lymphatic return for patients with a variety of obstructive airways diseases, including asthma are also observed<sup>6</sup>. Moreover, a significant change in behavior is also observed in patients who were treated with diabetes mellitus<sup>7</sup>.

Despite being very effective and least time consuming, application of manual therapy to treat visceral pathologies is very limited due to limited expertise and comprehensive knowledge for the effective manipulation. Further, a very little evidence related to the effectiveness of visceral mobilization for achieving benefits in the management of various medical conditions has been documented. Lastly, Researches in these days are required to conduct studies that not only focus towards identifying the effectiveness of visceral mobilization in response to the disease but also incorporate a strategy to evaluate the long term benefits of its application.

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