

Are there any more Louisa Burnses out there?

This month's issue of JAOA reprints two articles by Louisa Burns, DO, as they were originally published in 1907 and 1921 editions of this journal. One article was on viscerosomatic and somatovisceral spinal reflexes; the other, on somatic sensory impulses and vertebral lesions. In his introduction to these reprinted articles, Michael M. Patterson, PhD, makes it clear that Dr Burns was a giant before her time. She clearly identified important physiologic and pathophysiologic mechanisms years before they were again recognized by other outstanding researchers.

I was amazed by Dr Burns' description of her observations. In her study published in 1907, "Viscero-somatic and somatovisceral spinal reflexes," she incorporated research done in both animals and humans to arrive at important observations that continue to undergo study even today. She was an outstanding clinical investigator, incorporating initial animal research to develop human research and identify important findings. Her review article, "Somatic sensory impulses and vertebral lesions," published in 1921, does not have references, but, as Dr Patterson points out, this article was a description of what she was able to conclude after years of research, much of which was published in either manuscript or book form. Her descriptions of sensory impulses making their way from the level of the stimulated skin to the cerebral cortex are magnificent to read. She describes how high thoracic paravertebral lesions can influence blood flow through the meninges and even the brain. She points out how thoracic visceral disease can influence high thoracic paravertebral tone and, by inference, she suggests that thoracic visceral disease can actually substantially alter central nervous system (CNS) function, including cognitive performance and emotional balance, causing a variety of CNS disturbances. Emotional lability may occur in the absence of perceived discomfort in the high thoracic paravertebral regions. However, with pain and discomfort, emotional disturbances are even more likely to occur, in Dr Burns' opinion.

What I admire about these historic publications is the huge degree of original thought that Dr Burns had in her investigative efforts.

As I was reading through Dr Burns' research, I also took note of many of the other papers published in the 20th volume of the *Journal of the American Osteopathic Association* during the years 1920 and 1921. The articles focused on a variety of gastrointestinal disturbances, labor and delivery, mental disorders during adolescence, diseases of the inner ear and the mastoid process, injuries to the athlete, pneumonia, and diabetes, to name

a few topics. Every article contained vast descriptions of how osteopathic techniques enhanced the health of the patients who suffered from these maladies. Obviously, most of the research was not what in modern days we would call well-designed and well-controlled research. However, there were many interesting observations, particularly those related to structural abnormalities that were easily perceived by osteopathic physicians, reproducible by common identification techniques, and most likely related to the various disease states that were being discussed.

Reading through these reports, I could not help but to feel that the concepts proposed by Dr Burns concerning viscerosomatic and somatovisceral spinal reflexes were correct and important. Visceral disease does affect and alter somatic performance and structure. It is easy to understand why one would believe that treating somatic dysfunction could influence, hopefully in a positive fashion, visceral disease.

In my own practice as a pulmonary specialist, I have recognized that thoracic osteopathic manipulation can make patients with asthma and other forms of chronic obstructive lung disease feel better. I have not recognized improvement in air flow, but I have identified, in certain patients, a reduction in so-called air trapping or trapped gas volume within the thorax. Could this be an example of how thoracic osteopathic manipulation can improve lung function? What I am trying to say is that there is a wealth of research to be done. The work of Louisa Burns needs to be continued. Other investigators in our profession have made great contributions to her work, and this process should not stop.

Also in this current issue of JAOA, Felix J. Rogers, DO, and Michael J. Dyer, JD, describe what they uncovered during their attendance at the Osteopathic Collaborative Clinical Trials Initiative Conference in Bethesda, Md. This conference, which was sponsored by the American Association of Colleges of Osteopathic Medicine, focused on research in the osteopathic medical profession. Through a variety of presentations, the attendees learned more about the government's role in research and its interest in osteopathic research. An action plan was developed. It is hoped that this conference and a variety of other efforts will lead to an enhancement in both basic and clinical osteopathic research. The science of our profession must grow if our profession itself wishes to flourish.

As our historic journal reprint series continues this year, I would ask all our readers to pay particular attention to these pivotal articles. Important questions must be asked before they can be answered. Each and every osteopathic physician has a responsibility, in my opinion, to ask important questions concerning the science of our profession. As part of the Campaign for Osteopathic Unity, I would ask each osteopathic physician to participate, at some level, in original osteopathic thinking and research.

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