

Chiropractic Thermography: Objectifying Subluxation

By Richard J. Story, DC

Since the early days of chiropractic, there have been many attempts to devise systems or instruments that will verify the presence and correction of vertebral subluxations.

In the 1960s, a group of chiropractic researchers put together an overview of the neuropathophysiologic effects of vertebral subluxation on skin temperature.¹ This group consisted of chiropractors, students, engineers, physicists, medical doctors, and artists. The chiropractors involved included research pioneers A.R. Petersen, H. Marshall Himes, R.J. Watkins, GM Gleeson, and John Dickins. The work was published under the auspices of the Canadian Memorial Chiropractic College, and so advanced in thought and vision, that it is just now beginning to be understood by chiropractic science.

Here is a quote from their work that may give you a glimpse of the advanced thinking of these men ...

"The principle of chiropractic, theorized around the outdated classic model of nerve root compression -- the impingement of nerves within the intervertebral canal or foramina of the spinal column as the originating factor in most disease processes -- served well during the developmental era of chiropractic. The concept of this impingement causing a supposed physical interference with the normal transmission of nervous impulses, also served well during this era. Both hypotheses had great merit of providing a plausible explanation on which the actual practice of chiropractic was based.

"Unless advances are made beyond old mechanical concepts, into concepts embracing the neurological factors associated in the disease process, one finds it difficult, if not impossible, to explain the great paradox of chiropractic -- that different adjusting techniques, based on conflicting premises, often produce the same impressive clinical results."

The nerve pathways involved in the control of skin temperature have been well documented in the field of neuroanatomy.² The biomechanical alteration that occurs in the presence of vertebral subluxation alters the function of these nerve pathway.³ It is because of the abnormal function of these nerve pathways that thermographic asymmetries verify the presence of vertebral subluxations. The chiropractic adjustment

corrects the vertebral subluxation and can be observed when the thermograms are returned to normal symmetry.

The chiropractic profession is at a critical crossroads which, depending on the route taken, will determine the future of the profession. The three directions that are at hand are: the direction that the majority of the profession is going, which is the therapeutic treatment of musculoskeletal conditions; and the direction of the philosophical spinal manipulators with routine racks and cracks of the spine; the direction of the triune based chiropractor that is objectively substantiating what the chiropractic principle is built on.

The third direction referred to is the most positive way chiropractic can continue to demonstrate its uniqueness as a separate and distinct healing art. The chiropractor must learn to substantiate the need for chiropractic care for us to be included as a participant in our nation's health care delivery system.

Low resolution electronic chiropractic thermography provides objective monitoring of a patient and is used in conjunction with x-rays, MRI, SEMG, and physical findings. Chiropractic thermography enables the doctor to evaluate the sensory/autonomic neurophysiology which is so critical to the health of the human organism.

Current neurobiological research conducted by David Felten, MD, PhD, at the University of Rochester School of Medicine, has documented nerve fibers that physically link the nervous system and the immune system. Dr. Felton states, "Much to our surprise, we found that if you took the nerves away from the spleen or the lymph nodes, you virtually stopped immune responses in their tracks."⁴

So now we have it, scientific evidence which confirms what chiropractic has said since 1895. The importance of documenting and monitoring the effect of the chiropractic adjustment is at a magnanimous stage concerning the efficacy of chiropractic care and its impact on the health of the public. Low resolution electronic chiropractic thermography is an economical instrument that enables doctors to be the best they can be at tracking down vertebral subluxations and knowing when they have been corrected.

Case Report

A 40-year old male, while bending, felt a sharp pain in the lower back and shock-like pain at the base of the skull. He was unable to stand unassisted for three days. He complained of pain at L5 area centrally, right anterior thigh pain, lower leg pain, and numbness of the second toe on the left foot.

Laseagues, Braggards, and popliteal press were positive on the right. X-rays of the lumbar spine and pelvis demonstrated a left PI, left ex ilium, low left sacral base. No new cervical x-rays were taken at this point with cervical listing based on previous x-rays. Low resolution chiropractic thermography revealed asymmetrical patterns of the lumbar, dorsal, and cervical spine. Paraspinal line graph temperatures demonstrated a temperature asymmetry of over one degree C in the cervical spine with a decreased heat emission in the lower dorsal spine (Fig 1). Physical findings demonstrated a left negative Derifield leg check and a right cervical syndrome. MRI of the lumbar spine revealed herniated discs at L3/4 on the left and L5/S1 on the right.

ARNETTA: SCAN IN FIG. 1 and FIG. 2

Fig.1: Back scan at beginning of care. Note asymmetrical temperature patterns in cervical, dorsal, and lumbar areas. The line graphs below the scan are segmental paraspinal temperature graphs equal to DTG readings. Note the splits in the graphs and the cold reading in the lower dorsal area. This feature helps identify asymmetries. The color scale is at right of the scan. White at the top of the scale is the warm end. The resolution is set at .5°C between colors.

At the beginning of care, adjustments of the left ilium and 6th cervical had been made with little change to the thermograms (Fig 2). On the following day, Logan basic was used to correct a sacral base anterior and inferior on the left, and the atlas was adjusted ASRP with a side posture toggle. Again the thermography changed very little (Fig 3), although the patient was feeling some improvement. New cervical x-rays were taken at this point because of failure to normalize the thermogram. New listings of AIRA atlas and C2 spinous right were made. On the next day, adjustment of the atlas made little significant change thermographically. Adjustment of the axis was then made with dramatic thermographic changes (Fig 4). No further adjustments were made at this point.

ARNETTA: SCAN IN FIG. 3 and FIG 4

The following day the patient reported 75 percent improvement of discomfort. Thermography scans exhibited significant improvement with symmetry of the lumbar, dorsal, and cervical areas (Fig. 5). Paraspinal line graphs now were symmetrical with no temperature differences or cold areas. Physical findings demonstrated a balanced leg check and no cervical syndrome. No adjustment was made. The patient has since recovered with minimal adjustments required over the following one month period.

ARNETTA: SCAN IN FIG. 5

Conclusion

The use of low resolution electronic chiropractic thermography provided objective monitoring of how the chiropractic adjustment affected the patient's nerve system. Thermography enables the doctor to know when to proceed with further adjustment or when correction has been achieved. One of the most difficult decisions we as chiropractors must make is where and when to adjust the patient or when to leave them alone. Low resolution electronic chiropractic thermography gives the doctor the knowledge, confidence, and ability to make that decision.

The thermography system used in this case study was a non-contact, low-resolution, computerized electronic chiropractic thermography system.

References

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