2013

Justifying Postural X-Rays to Reveal Asymmetries

Richard S. Koch

JUSTIFYING POSTURAL X-RAYS TO REVEAL ASYMMETRIES

150 adult patients were studied via "postural" (standing) full spinal A/P X-rays.

The <u>object</u> was to determine: 1. The incidence of pelvic, vertebral and rib asymmetries while standing upright under gravitational influences; 2. The incidence of spinal discomfort symptoms occurring in areas of asymmetry; 3. The incidence of symptoms of disturbed visceral physiology ("functional ailments") in regions of autonomic neurosegmental relationship to the asymmetries; 4. The incidence of bony (costal, vertebral, and pelvis), and visceral pathology likewise segmentally related to various asymmetries.

<u>Technique:</u> Patients were X-rayed standing before an upright X-ray table. 14x36" films at a film tube distance of 60" are utilized. A steel wire is superficially imbedded in the table longitudinally bisecting table as a plumb bob vertical. A carpenter's level is used to correct any deviation from horizontal of table base or standing area. The wire then registers on the film as A PLUMB BOB VERTICAL midheel center of gravity line on which a symmetrical spine and pelvis will align itself, bisecting spinous processes, sacrum, and symphysis pubis. Subject's feet must be 6-8" apart (equal to the inter acetabular distance) and equidistant from the midline wire. Floor markers position feet.

On the developed film then, simple true horizontal projections may be taken from the vertical line and scribed through desired weight bearing joint parts (sacral base-lumbosacral, femoral acetabular joints, et al).

Horizontal asymmetries are observed as bony parts and joints being "higher" or "lower" (from the floor) than their contralateral fellow. Vertical asymmetries appear as curves and lists (lateral side bending) and rotations, either as single vertebral segments or as multiple, participating in a group of several adjacent segments. i.e. VARIOUS OBSERVED OR DEVIATIONS FROM THE PLUMB BOB VERTICAL LINE.

<u>Summary of Findings:</u> 1. 94% of all subjects exhibited readily perceived gross asymmetries in spine, pelvis, or both. 2. 87% of asymmetric subjects stated a history of spinal or pelvic (skeletal), discomforts recurrently in the areas of asymmetry. 3. 76% of asymmetric subjects evidenced signs or symptoms of functional or organic disorders neurosegmentally related to the areas of asymmetry. 4. In 92% of subjects bony or disc pathology was observed in areas of asymmetries.

<u>Conclusions:</u> The above statistics strongly suggest a causal relationship of spinal asymmetries to the production of spinal and visceral dysfunction and pathology. Results of this pilot study further indicate enormous benefits and economy in human health care may well be uncovered by a much more scientific, rigorous, and controlled similar study, toward identifying the extent and possible cause and effect of concurrent spinal asymmetries to related symptoms of back and neck aches, and visceral functional and organic disorders.

Richard S. Koch, D.O.