Review of: "Radiological Improvements in Symmetry of the Lateral Atlantodental Interval and in C1 Tilt After the Application of the Atlasprofilax Method. A Case Series."

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Very interesting paper. Within the upper cervical chiropractic specialty, there exist two (at least) chronic questions; 1) how to prove that what you think you have done you have really accomplished, and; 2) how to minimize magnification distortion of two-dimensional radiography. I'm not convinced this paper has adequately dealt with those questions. I do not question the possibility that improved segmental relations within the members of the craniocervical junction (Occipital condyles, C1-atlas, and C2-axis) can be achieved through manipulation of the suboccipital muscles and ligaments. I do question the possibility that open mouth radiographs can be adequately reproduced to eliminate the variable of magnification distortion. I suspect it is possible if stringent patient set-up procedures and verifications (on the images themselves) are in place.
There are two points brought forth in the paper that make magnification distortion an unwanted variable. The first point is in the pre/post images displaying the same patient (you can tell by the dental work). The images differ in the relation between the photon central ray and the objects to be visualized. This is known in the unequal projection of the mastoid processes. The post image shows longer processes, which tells us the central ray had a higher origin that the pre image and passes through the objects of interest at a steeper angle. The goal should be to have exact same images cast on the film so that the only measurable variable is the segmental distortion. The second point is the math associated with the lateral ADI. In the pre images, the total of the two measurements, left and right, should be the same as the total of the two measurements on the post image, left and right. Accomplishing this would lend a high degree of confidence in the performance of the procedure.
Future studies could include outcome measures coupled with accurate pre/post measures of lateral ADI. I look forward to seeing those.