

SLEEP APNEA

CERVICAL ANGLES IN SLEEP APNEA PATIENTS: A RETROSPECTIVE STUDY

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ABSTRACT:

The present study was undertaken to evaluate, retrospectively, radiographs from diagnosed Obstructive Sleep Apnea Syndrome (OSAS) patients. Four angles were assessed from the lateral radiographs: (1) atlas/axis, (2) atlas, (3) atlas/occiput, and (4) occiput, which, like the atlas angle, was determined relative to the horizontal plane of the x-ray film. The severity of OSAS was determined by two indices. The first, the standard "Respiratory Disturbance Index" (RDI), indicates the number of apneas and hypopneas per hour of sleep. The second index of OSAS severity, the combined "Sleep Baseline Score" (SBS), was derived from multivariate analysis of a wide variety of sleep parameters. These data were studied through bivariate and multiple regression analyses relative to the level of OSAS severity, sex, and age. Findings suggested that a general kyphotic configuration of the occiput and upper cervical spine existed among the overwhelming majority of OSAS patients. Moreover, data revealed that the greatest extent of flexion was apparent in the most severe OSAS patients, followed by the least severe, and then by the female OSAS patients. Sex differences relevant to the occiput and other upper cervical angles were interpreted cautiously due to the low number of females in the present study, which is characteristic of OSAS patients in general. From the present findings, it is apparent that OSAS patients can be expected to exhibit an upper cervical kyphotic spine. The impact of these findings, and ramifications of OSAS as a somatovisceral model evaluating the effects of chiropractic care are discussed.

SUBLUXATION CONNECTION

Restricted movements and reversed curvatures of the cervical spine place unusual tension along the joints, muscles, and nerves of the neck. As nerve and spinal tension increase, general body functions can be altered. Sleep apnea can be associated with neck posture and the nerve control systems of the upper neck. Chiropractic adjustments in an organized care plan show promising outcomes to this common problem.

