Changes in the sagittal plane spinal alignment at the time of the cross-leg sitting position

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Abstrak

ABSTRACT
Cross-leg sitting is locus posture performed well in Asian area, and a lifestyle and culture are thought to affect it. It is usually essential to cross-leg sitting carried out in the case of Zen meditation to maintain cross-leg sitting locus in a relaxed state to perform locus posture in floor, and to perform it in hip joint flexion of bilateral feet, abduction, and lateral rotation position in the meditation for a long time. The spinal column of cross-leg sitting was intended that aligning it confirmed backbone in lumbar vertebrae being displaced than rest standing position in the kyphosis direction or raising a bearing surface whether aligning it changed into lordotic projection from the lumbar vertebrae kyphosis direction. The thoracic vertebra angle and the lumbar vertebrae angle measured it using SpinalMouse®. We decided to measure a thoracic vertebra angle, a lumbar vertebrae angle when we changed the height of the target rest standing position and the bearing surface of cross-leg sitting. The thoracic vertebra angle did not change by raising the bearing surface of cross-leg sitting, however the lumbar vertebrae angle changed. It showed a significant correlation between hip joint flexion, abduction, an external rotation angles and the change of the lumbar vertebrae angle. Results of this study suggested that lumbar, aligning it changed to lordosis in the high cross-leg sitting thing that we changed. The quantity that aligning it biases into lordosis of the lumbar part is related to the flexion of the hip joint, abduction, external rotation flexibility.