



BALANCE AND FALLS IN AXIAL SPONDYLOARTHRITIS: A CROSS SECTIONAL STUDY.

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BACKGROUND

Background: Spondyloarthritis (SpA) patients, mainly those with advanced disease, may have postural difficulties. In these patients the spine may become stiff due to the chronic inflammatory process of fibroconnective tissues and bones, leading to hip flexion, increase in dorsal kyphosis and loss of lumbar and cervical lordosis. Knee flexion occurs as a compensatory mechanism promoting the appearance of the classic skier posture. Such malalignment causes dislocation of the center of mass of the trunk, disturbing static and dynamic balance. It also causes difficulties in looking up and creating visual inputs that are important to compensate the negative effects of postural instability.

Aim: To study balance impairment and falls in SpA patients and its association with clinical and epidemiological variables, disease activity, functional and metrology indexes.

MATERIALS AND METHODS

Materials and methods: Cross sectional study of 55 SpA patients with axial disease. Clinical and epidemiological were collected from the charts. Balance was assessed by Berg Balance Scale (BBS). The following instruments were applied: ASDAS (Ankylosing Spondylitis Disease Activity Score)-ESR, ASDAS-CRP, BASDAI (Bath Ankylosing Spondylitis Disease Activity Index), BASFI (Bath Ankylosing Spondylitis Functional Index), BASMI (Bath Ankylosing Spondylitis Metrology Index) and ASQoL (Ankylosing spondylitis quality of life questionnaire). The number of falls in the last year was collected.

RESULTS

Results: In this sample, 30.9% had high risk of falls by the BBS and 25.4% recalled having at least one fall in the last years. The BBS values were lower in those with white ethnic background ($p=0.01$); smokers ($p=0.03$) and with HLA-B27 ($p=0.03$) and correlated inversely with BASDAI ($\rho=-0.28$), ASDAS-ESR ($\rho=-0.32$) and ASDAS-CRP ($\rho=-0.33$), BASFI ($\rho=-0.71, p<0.0001$), BASMI ($\rho=-0.80; p<0.0001$), and age ($\rho=-0.50; p<0.001$). Multivariate analysis showed that BASFI and BASMI were independently associated with BBS ($p=0.02$ and 0.0001 respectively). Patients with falls had lower BBS ($p=0.03$) and loss of balance correlated with impairment of the quality of life ($\rho=-0.56; p<0.001$).

CONCLUSION

Conclusions: Balance is impaired in almost 1/3 of SpA patients and the BBS is associated mainly with functional and metrology indexes, showing that patients with severe cumulative damage are more affected.