

5.3 Association between changes of lumbar spine and age, physical activity and body mass index in a sample of Sri Lankan population: A descriptive study.

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ABSTRACT

Introduction: Disc space narrowing, vertebral osteophytes, spondylolisthesis are features of degeneration of the spine and are recognized causes of low back pain and sciatica. However on some occasions they can be present in the spine without causing problems such as low back pain and sciatica.

Objective: To describe the association between disc space narrowing, vertebral osteophytes and spondylolisthesis with body mass index (BMI), posture, physical exercise and age.

Method: Descriptive cross sectional study was done with people who had antero posterior and lateral radiographs of the lumbar spine ordered due to problems such as abdominal pain. These people had no problems of backache. Structured interviewer administered questionnaire was used to assess their leisure time activities and other physical activities done at office and home. Their weight and heights were measured and BMI was calculated. Results were analysed using EPI6 statistical package. This study was done in North Colombo Teaching hospital Ragama.

Results: Sample size 133. Age range 18-79yrs. Mean (SD) age 51.4 (16.3). There were 82 (62%) females. Age had a significant positive association with vertebral osteophytes ($P < 0.0001$). Regular exercise had a significant positive association with spondylolisthesis ($P = 0.03$). BMI had a significant positive association with vertebral osteophytes ($P < 0.001$). Posture did not have a significant association with disc space narrowing, vertebral osteophytes and spondylolisthesis.

Conclusions: Ageing and high BMI are associated with vertebral osteophytes. Regular exercise is associated with spondylolisthesis.