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Selected Risk Factors and Its Association in a Group of Patients with Cervical or Lumbar Disc Herniation

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Background: Disc herniation is regarded as a major disability in human skeletal system. Although the exact mechanism is not understood, age, sex, heavy occupation, mechanical loading, smoking, vibrations, trauma and strenuous sporting activities are few common causes attributing to disc herniation and those can be widely classified into socio-demographic, behavioural and occupational risk factors.

Objectives: To assess the association of selected behavioural and occupational risk factors with cervical disc herniation (CDH) or lumbar disc herniation (LDH)

Methods: A descriptive cross-sectional study was conducted in 77 (18-70 years) patients who undergone discectomy for either CDH or LDH in a selected hospital. An interviewer administered questionnaire was used to gather information related to socio-demographic, behavioural, occupational risk factors. Independent sample t-test and Pearson Chi-Square test were used to determine associations. p < 0.05 was considered as the level of significance.

Results: There were 54.5% males and 45.5% females while mean (±SD) body mass index of subjects was 23.8 (±3.8) kg/m². There were 64.9% patients presented with LDH while remaining had CDH. Mean age of the participants was 49.5 (±12.9) years. There were 79.2% non-smokers and 70.1% nonalcoholics. These did not have any significant difference with CDH and LDH. Majority of CDH (77.7%) and LDH (90%) did not involve in any sports while 53.2% involved in physical exersices. Among the patients, CDH (22.2%) and LDH (26%) involved in heavy strain to back/neck exercises with no significant difference with type of exercises. More than 80% of patients were involved in heavy (45.5%) and moderate strenuous occupational work (44.2%) and mean duration of occupation of patients was 22.7 (±11.9) years. There was no significant association between physical demanding nature of occupation and duration of occupation in CDH and LDH.

Conclusions: There was no significant association with selected behavioral risk factors such as type of exercise, type of sports and occupational risk factors such as physical demanding nature of occupation, duration of occupation and social history of smoking and alcohol consumption with CDH and LDH.

Keywords: Behavioural risk factors, Cervical disc herniation, Duration of pain, Lumbar disc hernaition, Occupational risk factors