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## **Evaluation of inguinal hernia prevalence among soldiers with BJHS and effect of training course on it**

### **Abstract**

**Introduction:** there are several evidences in favour of relationship of inguinal hernias and connective-tissue disorders. Soldiers are one susceptible group for inguinal hernia. The aim of this study is to evaluate the prevalence of Benign Joint Hypermobility Syndrome (BJHS) in soldiers and its relationship to inguinal hernias during training periods.

**Methods:** this descriptive-analytic cohort study was done on soldiers of a military-base selected by easily-sampling method. Soldiers were divided into two groups of suffered from BJHS and healthy ones by using the beighton-scoring system for diagnosis of joint hypermobility. At the beginning, past history of inguinal hernia in two groups was assessed by history taking and physical examination.

After 3months of training, two groups were reassessed and compared for new incidence of inguinal hernia. Collected data was statistically analyzed by SPSS version20 software using “Chi-Square” and “Mc-Nemar” tests.

**Results:** In this study 718 soldiers in two groups of suffered (211) and controls (507) were evaluated for presence of inguinal hernia. BJHS was detected in 29.4% of soldiers. At the beginning, a positive past history of inguinal hernia was significantly higher in case group (P-value=0.003). After training period new occurrence of hernia was significantly higher in cases (1.4% against 0.2%, P-value=0.04) and this relationship was more clear in higher beighton scores (P-value=0.01).

**Conclusion:** Joint hyper-mobility and inguinal hernia have statistically significant relationship in soldiers and physical activities of training period cause higher incidence of hernia in suffered group than controls. Therefore in every case of BJHS, the presence of inguinal hernia should be noticed.

**Keywords:** Benign joint hypermobility syndrome, Inguinal hernia, Soldiers