Analysis of internal and external rotation of the glenohumeral joint and its relationship to shoulder pain in elite swimmers Análisis de la rotación interna y externa de la articulación glenohumeral y su relación con el dolor de hombro en nadadores de éli

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Objectives. To measure the range of internal and external rotation of the glenohumeral joint in elite swimmers compared with healthy controls. Secondarily, compare these ranges in swimmers with and without shoulder pain. Methods. Twelve women and eighteen men elite swimmers (17.9 ± 3.8 years) and thirty healthy volunteers (20.8 ± 5.5 years) were questioned and clinically evaluated (internal and external rotation). The data were processed with STATA 9. Was used Mann-Whitney and Fisher's exact tests, considering a significant difference $p < 0.05$. Results. The prevalence of persistent pain (two weeks pain) is 47%. The glenohumeral internal and external rotation is decreased in swimmers compared to the control group. The right external rotation of the swimmers with pain is higher than in swimmers without pain. Conclusions. Highly competitive swimmers had a lower of glenohumeral internal and external rotation. Its association with pain is still controversial.