



## Isokinetic Parameters of Shoulder Joint in Tennis Elbow Versus Golfer's Elbow

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**Abstract : Purposes:** The aim of our study is to analyze the difference between normal subjects and patients with elbow problems (tennis elbow or golfer's elbow) in shoulder isokinetic parameters. **Material and Methods:** Thirty male athletes participated in our study and divided into equally three groups. The first group (A) suffered from tennis elbow, the second group (B) suffered from golfer elbow, and the third group (C) is normal subjects. Each of them consisted of ten participants. Their age ranged from 20 - 35 years. Open kinetic chain shoulder flexion and extension peak torque were measured at angular velocity (60°/sec) with concentric/eccentric mode by Biodex System 3 Multi-Joint system testing and rehabilitation (Biodex Medical system, Shirley, NY, USA). **Results:** The statistical analysis revealed that there was no significant differences in the mean values of the "eccentric peak torque of shoulder flexors" among three groups with ( $P > 0.05$ ). While, there was a significant difference in the mean values of the eccentric peak torque of shoulder extensors among three groups with ( $P < 0.05$ ). Multiple pairwise comparison tests revealed that there were no significant differences of eccentric peak torque of shoulder extensors between (Group A Vs. group B) and (Group A Vs. group C) with ( $p = > 0.05$ ) and there was a significant difference of eccentric peak torque of shoulder extensors between (Group B Vs. group C). **Conclusions:** It can be concluded that there is no difference in the shoulder flexors' peak torque between athletic patients suffered from tennis elbow, golfer's elbow and normal subjects, but there is a difference in shoulder extensors' peak torque between athletic patients suffered from golfer's elbow, and normal subjects. This was significant reduction in favor to group (B).

**Key words :** tennis elbow, golfer's elbow, isokinetic parameters, shoulder joint.