

Shoulder Injuries in Wheelchair Athletes: Clinical and Ultrasonographic Evaluation in Wheelchair Tennis Players

Department of Orthopedic Surgery, Department of Diagnostic Radiology College of Medicine, Kyungpook National University, Department of Orthopaedic Surgery, Daegu Veterans ' Hospital Daegu¹⁾, Fatima Hospital²⁾, Daegu, Korea

In-Ho Jeon, M.D., Jong-Min Lee, M.D., Hee-Soo Kyung, M.D.,
Young-Hun Sohn Oh, M.D., Ho-Wug Wee, M.D.¹⁾, Dong-Joo Shin, M.D.²⁾

Purpose

Wheelchair tennis has been identified as one of the top ' injury risk ' sports for shoulder but little information is available as to the incidence or type of injury. This study investigated the incidence of shoulder injuries in athletes who participated in Daegu international wheelchair tennis open based on clinical and ultrasonographic examination.

Materials and Methods

A questionnaire was used to collect information about shoulder pain and we performed bilateral shoulder ultrasonography (IU 22, Philips Medical, Eindhoven) studies on each athlete (n = 33). Linear probe of 7.5 MHz was used for sonographic examination.

Results

There were 26 male and 7 female athletes recruited with average age of 36. 2 years (range: 25 -45 years). Twenty three athletes (69.6%) in this study reported shoulder pain. Most common pathology found with sonographic examination on the dominant shoulder was acromioclavicular pathology in 21 players (63.6%). Full thickness rotator cuff tear was found in eight dominant shoulders and six non-dominant shoulders. All full-thickness tear occurred in supraspinatus tendon. However, there was no infraspinatus, subscapularis tears identified.

Conclusion

The prevalence of rotator cuff tear and acromioclavicular pathology by ultrasonographic examination was relatively high in wheelchair tennis player. Average age, training time per day, wheelchair use and career as wheelchair tennis player did not present significant difference between cuff tear group and non-tear group.

Key Words

Wheelchair, Tennis Player, Shoulder, Ultrasonography.