

Komal Mehta

D.Y. Patil University
India



Electromyographic analysis of infraspinatus and supraspinatus muscle during mugdar (Indian Club) swing

Abstract:

Mugdar (Indian Club) swing is one of the popular exercise in early centuries in Asian countries. It not only used for physical training but even for athletic performance and as well as moral strength. It has unique design as their unique feature of multi-purpose training. During swing shoulder joint (Rotator cuff) play a crucial role and with different position muscle activation varies. Surface EMG has been used for assessing and analysing electromyographic activity. Therefore, our purpose is to analyse and compare recruitment of muscle activity such as Infraspinatus and Supraspinatus during Mugdar swing. A pre-amplified surface electromyography sensors used with ProComp Infiniti channels. Electrodes placement was done according to Criswell 2010 classification. MVIC manovure was performed according to that classification. 33 subjects age varies from 18 to 30 were included in the study as per the inclusion criteria. Indian Club swing can be used for recruitment of Infraspinatus and Supraspinatus muscle as both shows significant result. The movement that are done in scaption plane helps in higher recruitment of specific muscle. In Mugdar swing, Supraspinatus muscle shows significantly higher activation than Infraspinatus. On comparison of recruitment to their MVIC Supraspinatus shows 35% of MVIC while Infraspinatus shows 25% of MVIC. Swing pattern used in this study would be beneficial for population that includes more of overhead activities such as overhead athletes.

Biography

I am **Komal Mehta** (PT) an Sports physiotherapist from India. I completed my Bachelor of Physiotherapy from Government Physiotherapy College from Jamnagar in 2021. Pursued My Master of Sport Physiotherapy from DY Patil University, Navi Mumbai and completed in 2023. Currently working as a consultant physiotherapist in Private clinic. I have been selected for research earlier for International Shoulder Group conference (ISG) 2024 at York University in Toronto.