THE RELATIONSHIP BETWEEN HIP ABDUCTOR MUSCLE STRENGTH AND ILIOTIBIAL BAND TIGHTNESS IN PATIENTS WITH CHRONIC LOW BACK PAIN ATTENDING DEPARTMENT OF RHEUMATOLOGY AND REHABILITATION OF THE NATIONAL HOSPITAL, SRI LANKA

NNH Gamage[1#], MPH Wickrama[1], YP Satharasinghe[1], LBKM Silva[1], SA Thenuwara[1], SADCS Senavirathna[1], SHM De Silva[2] and JMKB Jayasekara[3]

[1]Department of Physiotherapy, Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University, Sri Lanka
[2]Department of Rheumatology and Rehabilitation-General, National Hospital, Sri Lanka
[3]Department of Medical Laboratory Sciences, Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University, Sri Lanka
[#]*nnhgam@gmail.com*

Low back pain (LBP) causes disability and hinders daily activities of general population. Despite extensive research, the exact cause of chronic mechanical LBP remains uncertain. There is inadequate evidence related to hip abductor muscle strength and iliotibial band (ITB) tightness among subjects with LBP. A descriptive cross-sectional study was conducted at National Hospital, Sri Lanka, between 103 individuals with chronic mechanical LBP, aged between 20-65 years. Oswestry Disability Index (ODI) was used to gauge the severity of LBP. Hip abductor muscle strength and ITB tightness was measured in all subjects. Mean age of the sample was 50.09 ± 11.163 comprising, 34% male and 66% female patients. Pearson's correlation revealed significant correlations in right ITB tightness and ODI (p=0.003, r=0.289), Left ITB tightness and ODI (p=0.005, r=0.275). Significant relationships were also present between right hip abductor muscle strength and ODI (p=0.030, r=-0.213) and left hip abductor muscle strength and ODI (p=0.050, r=-0.192). However, there were no correlation between hip abductor muscle strength and ITB tightness in the current study. Even though ITB tightness and hip abductor muscle strength were correlated to LBP, the relationship between hip abductor muscle strength and ITB tightness was not detected in the current study. However, it is recommended to incorporate exercises to minimize ITB tightness and to improve hip abductor muscle strength, in the interventions for patients with LBP. Extensive studies should be carried out to assess hip abductor weakness and ITB tightness.

Keywords: Low Back Pain, Hip Abductor Muscles, Iliotibial Band