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• 計畫中文名稱	台灣地區優秀舉重選手的飲食狀況與體內抗氧化力、肌肉損傷狀況之評估		
• 計畫英文名稱	The Evaluation of Dietary Pattern and Antioxidative Capacity, Muscle Damage of Weight Lifter in Taiwan		
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• 研究人員	劉珍芳 Liu, Jen-Fang		
• 中文關鍵字	舉重選手；飲食狀況；肌肉損傷；氧化壓力；抗氧化力		
• 英文關鍵字	Weight lifter；Dietary pattern；Muscle damage；Oxidative stress；Antioxidative capacity		
• 中文摘要	<p>舉重選手通常接受密集之重量訓練計畫,容易造成肌肉損傷;並可能因此產生自由基。本研究以國立體育學院舉重選手男女各 13、19 人作為受試者,目的是為了探討台灣地區優秀舉重選手經過兩週不同強度之重量訓練之後,體內抗氧化力、肌肉損傷狀況及體組成之改變;並評估選手訓練期間之飲食攝取狀況。舉重選手經過各一週之大運動量及小運動量的訓練之後,體組成包括瘦體組織(Fat-free mass)、體脂肪重及體脂肪百分比(% body fat)皆無明顯改變。舉重選手於重量訓練後,Creatine kinase 活性皆有明顯增加($p < 0.05$)。男性選手第二週之小運動量訓練後,超氧化歧化酶(Superoxide dismutase,SOD)活性明顯低於訓練前。除了女性選手則是於第二週之小運動量訓練後,麩胱甘肽過氧化酶(Glutathion peroxidase,GSH-Px)活性有明顯增加。血漿中總抗氧化力(Total antioxidant status,TAS)除男性選手於第一週大運動量後有明顯上升,其餘訓練後的 TAS 皆為下降。男女舉重選手第一週大運動量後,血紅素(Hemoglobin,Hb)有明顯增加;男性選手於第一週大運動量後,總攜鐵力(Total iron binding capacity,TIBC)明顯增加;且第二週小運動量後,血清鐵(Serum iron)濃度明顯下降。另外,經過兩週之重量訓練對血漿中瘦體蛋白(Leptin)濃度沒有影響,但 Leptin 濃度與體脂肪百分比有明顯相關性。另外,以同年齡之男女各 15、17 人為控制組,與舉重選手訓練前的狀態進行對照。與控制組相比,舉重選手的 FFM 量明顯低於控制組;女性選手的 Creatine kinase 活性明顯高於控制組。舉重選手的 GSH-Px 活性明顯低於控制組,血漿中 TAS 明顯高於控制組。</p>		
• 英文摘要	The weight lifters easily have muscle damage due to the routine weight training program, and maybe bring some oxidative		

stress. This study is to examine the antioxidant capacity, muscle damage, and body composition change in weight lifters following 2 weeks different intensity weight training regimen, and to evaluate dietary habit and pattern of weight lifter. Thirteen male and 19 female weight lifters gave their informed written consent to participate in this study. After 1 week high-intensity and low intensity-weight training, weight lifters, body composition has no significant change. After weight training, creatine kinase activities increased significantly. The SOD activity decreased significantly after low-intensity training in male weight lifters. The glutathione peroxidase (GSH-Px) activity increased significantly after low-intensity training in female wight lifters. The plasma Total antioxidant status (TAS) increased significantly after low-intensity training in male weight lifters. After high-intensity training, hemoglobin increased significantly. The TIBC increased significantly after high-intensity training and the serum iron decreased significantly after low-intensity training in male weight lifters. However, there is no effect on plasma leptin levels after 2-weeks weight training, but plasma leptin levels are significantly correlated with the body fat content in male and female weight lifters. Besides, 15 male and 17 female non-athletes as control group compared with the data of weight lifters in baseline. Compare with control group, weight lifters had lower FFM amount. The creatine kinase levels in female weight lifters were significantly higher than that of control group. The GSH-Px activity was significantly lower and the TAS was significantly higher in weight lifters compared with control group.