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## Effect of post-training meal timing on insulin resistance, fat mass and muscle oxidative stress in relation to serum leptin in male albino rat

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This study was designed to investigate whether the post exercise immediate or delayed feeding would result in greater skeletal muscle mass, glycogen and antioxidant status. In addition, the effect on insulin resistance, plasma leptin and its relation to some gastrocnemius muscle parameters were also studied. Thirty adult male albino rats were divided into three equal groups; none exercised group, the immediate group receives their meals immediately after exercise and the delayed one receive their meals three hours later. Rats were exercised by swimming 1 h/day, 4 times/week for 12 weeks. Blood samples were taken for plasma leptin, glucose and plasma insulin. Insulin resistance was estimated by HOMA-IR formula. Gastrocnemius muscle was taken for determination of glycogen concentration, malondialdehyde (MDA) content and total antioxidant capacity (TAC). Data of the present study showed that muscle bulk, its glycogen content and TAC were greater with lower fat tissue weight and plasma leptin in the immediate feeding group versus the delayed. There was a significant decrease in blood glucose and insulin resistance levels of the exercised groups with their pre-exercised values with insignificant changes in immediate and delayed group.

### Biography

Merhan Mamdouh Ragy is working as an Assistant Professor of Physiology, Menia University School of Medicine, Egypt. She has published more than 30 papers in national and international journals and has been serving as a reviewer in many international journals.

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