## Comparision of weight training with and without chain on strength, muscle endurance and muscle circumference in novience bodybuilders.

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Abstract Resistance training with different methods is often used to increase strength muscular endurance, aneaerobic power and muscular hypertrophy in athletes, and importance of this kind of training in sport's performance is clear. The purpose of the present research was to study the effect of 8 weeks constant and accommodative resistance training on strength endurance muscular, anaerobic power and muscle hypertrophy in novience body builders. The subjects were included 30 body builders (age 25.41  $\pm$  3.75 years, height 174.33  $\pm$  4.53 cm and weight 69.49  $\pm$ 4.28 kg) with between 3 to 6 months training experience (body building). Subjects were informed about the process of tests, and divided randomly into three groups named constant resistance ,accommodative resistance groups and control(10 subjects per each group), and all the subjects did the pretest. After the preliminary measurement that includes stature, weight, upper and lower body dynamic strength and upper and lower endurance muscle anaerobic power, groups trained for 8 weeks (3 session per weeks) with 65 to 80 percent of their 1RM in bench press, lat, leg curling and squat with the same volume, and it also applied the specificity training principle during the exercise period. 20 percent of 1RM were added gently to the load of accommodative group with chain through the range of motion. This load addition continued until all chain links were lifted off the ground. The balance of performance speed was being controlled by metronome in both groups. The results of t-test indicated that there was a significant increase in upper and lower body strength and upper and lower body muscle endurance, circumference of muscle in both groups after 8 weeks resistance training ( $p \le 0.05$ ). The results of anova test also showed

significant differences in increasing upper and lower body strength, upper and lower muscle endurance in accommodative group than constant group ( $p \le 0.05$ ). The results of this study revealed that accommodative resistance method (compound of weight and chain) is more effective on increasing the strength and enduranse in body builders than constant resistance method. Keywords: Constant resistance, Accomodative resistance, strength, muscular endurance.

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