



## A Comparison of eight weeks of resistance and endurance exercise programs on apelin plasma and LDL and HDL levels in obese postmenopausal women

*Oral Presentation*

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### **Abstract**

**Introduction:** Studies show that apelin vasodilator peptide plays an important role in vascular tone and cardiovascular function [1-3], but the effect of resistance training and comparison of resistance and endurance training on plasma apelin has not been studied before. Methods the present study was 24 postmenopausal women obese (age  $55.5 \pm 5.6$  years, weight  $72.65 \pm 11.44$  kilograms and BMI  $30.62 \pm 3.63$ ) were randomly divided into two groups of 12 people (Endurance and resistance) groups (Group resistance training with 60 to 80% 1RM and Group endurance training with 55 to 70% of heart rate Karvonen). Apelin plasma, LDL, and HDL levels, 24 hours before and 48 hours after the application was measured. Data were analyzed using repeated measures, and to test the significance level of  $P<0.05$  was considered.

**Results:** The results showed that the intergroup change in plasma apelin and HDL and LDL was significant ( $P < 0.05$ ).

**Conclusion:** Following eight weeks of resistance training and endurance apelin plasma levels and LDL and HDL in obese postmenopausal women. There was a positive change that could improve the health of obese postmenopausal women.

### **Keywords**

resistance training; endurance training; the plasma apelin; LDL; HDL

### **Reference:**

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