



## Effect of eight week aerobic-intensity exercises on hematological variables of both femoral arteries among middle-aged men following percutaneous coronary intervention

### Poster Presentation

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### Abstract

**Introduction:** Although it is documented that regular physical exercises with appropriate intensity and duration can improve cardiovascular function, the effects of various aerobic, resistance and strength exercises on hematological factors in the blood are vague and even contradictory. So the main purpose of this study was to evaluate the effect of eight weeks of aerobic training on hematological variables of both femoral arteries in middle-aged men.

**Methods:** Thirty patients who underwent coronary angioplasty, with an age range of 45 to 60 years, were randomly selected from the patients referred to the Rehabilitation Clinic of Tehran Cardiac Center. They were randomly divided into two groups: aerobic exercise (15 males), and control (15 males). Red and white blood cell count, hemoglobin level and hematocrit percentage were measured before and after the exercise. The aerobic exercise program was performed for eight weeks and three sessions per week, each session lasting 40 minutes, for each patient.

**Results:** The results showed that aerobic exercise on hematological variables of both femoral arteries was not confirmed at the significance level of 0.05. Although the effect of aerobic exercise was not significant in hematological variables of both femoral arteries. All variables have improved in order to improve and reach the norm of normal people generally.

**Conclusion:** It seems that this level of aerobic exercise in heart patients alone cannot improve the hematological factors of their blood

### Keywords

Coronary angioplasty; femoral artery; aerobic exercise; Middle-aged man; Hematological variable.

### Reference:

1. Ayoub S, Ferrari G, Gorman R, Gorman JH, Schoen FJ, Sacks MS. Heart valve biomechanics and underlying mechanobiology. 2016; 6(4): 1743- 1780
2. Guyton A. Physiology of the human body. 6th ed. Philadelphia: Saunders; 1984.1: 71-488.
3. Jafari M. Effect of Running Training on White Blood Cells and Platelets Count and Red Blood Cells Distribution Width in Untrained Middle-Aged Men. International Journal of Sport Studies for Health. 2019 April; 2(1):e89513
4. Lippi G, Salvagno GL, Danese E, Tarperi C, Guidi GC, Schena F. Variation of Red Blood Cell Distribution Width and Mean Platelet Volume after Moderate Endurance Exercise. Advances in Hematology. 2014;14:4