

## عنوان مقاله:

The Effect of Aerobic Training with Purslane (*Portulaca Oleracea*) Seed on Toll Like Receptors in Colon Tumor Tissue of Adult Rats with Colon Cancer

## محل انتشار:

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## خلاصه مقاله:

Background and objective: Exercise and nutrition are two factors influencing the improvement of inflammatory markers in patients with colon cancer. Aim of present study was to investigate the effect of aerobic training (AT) with Purslane (*Portulaca Oleracea*) Seed (PS) on toll like receptor 2 (TLR-2) and TLR-4 in colon tumor tissue of rats with colon cancer. Methods: In this experimental study 30 adults rats were divided into five groups of six rats including: 1) healthy control, 2) control, 3) training, 4) PS, and 5) training + PS. Colon cancer induced by intra-peritoneal injection of azoxymethane in groups 2- 5. During eight weeks, groups 3 and 5 performed AT for five sessions per week also groups 4 and 5 received 75 mg/kg PS intra-peritoneally. TLR2 and TLR4 protein levels were measured by ELISA method. For review the normal distribution and data Shapiro-wilk was used and for statistical analysis of data one way ANOVA with Tukey's post-hoc tests were used ( $P \leq 0.05$ ). Results: Training had not significant effect on TLR-2 ( $P=0.91$ ) and TLR-4 ( $P=0.95$ ); PS and training + PS significantly decreased TLR-2 and TLR-4 ( $P=0.001$ ) also training + PS had more favorable effect on decrease of TLR-2 compare to training and PS alone ( $P=0.001$ ). Conclusion: Although PS alone can improve TLR-2 and TLR-4 levels in colon tumor tissue of adult rats with colon cancer, nevertheless it appears that AT along with PS have more favorable effects on improvement of TLR-2 compare to training and PS alone.

## کلمات کلیدی:

Exercise, Portulaca, Toll-Like Receptors, Colonic Neoplasms

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