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Title: Effects of aerobic exercise training in cytokines levels on muscle of mice exposed to cigarette smoke

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Body: Smoking has been shown to increase inflammatory biomarkers and exercise can influences this response. The purpose of our study was to evaluate the effects of physical training on cytokines levels on muscle of mice exposure to cigarette smoke. Methods: C57Bl6 mice were divided into 4 groups: Control, Smoke, Exercise and Smoke/Exercise. Smoke groups were exposed to cigarette smoke for 30min/day (twice), 5days/week for 4 weeks. Exercise groups were trained at moderate intensity for 60min/day, 5days/week for 4 weeks. TNFa, IL-6 and IL-10 levels were measured on muscle by ELISA. Results: IL6 and IL-10 increased after 4 weeks in Exercise and Smoke/Exercise groups ($p < 0.001$, compared to smoke and control group). TNFa increased on Smoke group and exercise training inhibit this response ($p < 0.05$). Conclusion: Our results suggest that AE training at moderate intensity have beneficial effects on inflammatory biomarkers in mice exposed to cigarette smoke.