The effect of 6-weeks of aerobic exercise training on serum fetuin-A levels in non-diabetic obese women

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Emerging evidence suggests that fetuin-A, a liver-derived glycoprotein, represents an important factor in the pathophysiology of the metabolic syndrome, type 2 diabetes and cardiovascular disease. So far circulating fetuin-A was found to be increased in fatty liver disease, however, the precise mechanisms regulating fetuin-A expression and secretion are largely unknown. Here we assessed serum fetuin-A levels in 14 non-diabetic, obese women (BMI 36.5 ± 1.5 kg/m²) before and after a 6-week aerobic exercise program. Despite decreasing waist circumference (from 114.9 ± 3.5 to 112.3 ± 3.2 cm; P = 0.006) and body fat content (from 44.1 ± 1.5% to 43.4 ± 1.5%; P = 0.022) regular exercise 3-times per week over a 6-week period did not affect serum fetuin-A levels (before vs. after: 0.440 ± 0.018 vs. 0.440 ± 0.014 μg/ml; P = 0.767). Thus, our data provide evidence against a major role of exercise in the regulation of serum fetuin-A levels in non-diabetic obese women.

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