

The Effect of the Omega 3 Fatty Acids to Lipids and Anthropometric Parameters in the Obese Young Volunteers

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Aim: To ascertain the effect of the supplementation of the polyunsaturated fatty acids to the lipids and anthropometric parameters in the obese healthy probands, during their 6 weeks treatment.

The Group and Method: 95 healthy probands, aged 12-18 years, body mass index > 27 kg/m² were included. The group was divided into 2 arms. Arm A (30 probands) – the omega 3 fatty acids 360 mg/day was added. Arm B (65 persons) normal reduction diet, without the supplementation of the fatty acids. All examined parameters were analyzed at the start of the study and after 6 weeks (total cholesterol, triglycerides, HDL, LDL cholesterol, blood pressure, apolipoprotein B, body mass index, circumference of the waist, C reactive protein).

The statistical method: ANOVA, t-test, pair t-test and χ^2 were used.

Results:

1. Body weight in arm A was reduced from 88,8 ± 22,82 kg to 80,17 ± 19,87 kg, in group B from 79,49 ± 13,28 to 71,08 ± 11,61 kg, n.s.
2. Body mass index reduced in group A from 32,29 ± 5,79 to 29,17 ± 5,33 kg/m² in group B from 29,04 ± 3,07 to 26,25 ± 2,74 kg/m², p=0,52
3. Total cholesterol was reduced in group A from 4,22 ± 0,64 to 3,42 ± 0,53 mmol/l, in group B from 3,64 ± 0,68 to 3,23 ± 0,54 mmol/l p<0,05
4. ApoB was reduced in group A from 0,84 ± 0,16 to 0,65 ± 0,15, in group B from 0,64 ± 0,15 to 0,52 ± 0,12 p<0,05
5. No effect to the blood pressure, C reactive protein and the other parameters were ascertained.

Conclusion: The decreasing of the total cholesterol, apolipoprotein B was more marked in the group of the volunteers with the supplementation of the omega 3 fatty acids than in the control group.

The project was supported by the Grant of the Ministry of Agriculture, CZ, No QH 923