

Relationship between Conjugated Linoleic Acid Intake, Biochemical Parameters and Body Fat among Adults and Elderly

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Abstract : Conjugated linoleic acid (CLA) intake has been constantly related to benefits to human health since having a positive effect on reducing body fat. The aim of the present study was to investigate the association between CLA intake and biochemical measurements and body composition of adults and the elderly. Subjects/Methods: 287 adults and elderly participants in an epidemiological study in Sao Paulo Brazil, were included in the present study. Participants had their dietary data obtained by two non-consecutive 24HR, a body composition assessed by dual-energy absorptiometry exam (DXA), and a blood collection. Mean differences and a correlation test was performed. For all statistical tests, a significance of 5% was considered. Results: CLA intake showed a positive correlation with HDL-c levels ($r = 0.149$; $p = 0.011$) and negative with VLDL-c levels ($r = -0.134$; $p = 0.023$), triglycerides ($r = -0.135$; $p = 0.023$) and glycemia ($r = -0.171$; $p = 0.004$), as well as negative correlation with visceral adipose tissue (VAT) ($r = -0.124$, $p = 0.036$). Evaluating individuals in two groups according to VAT values, a significant difference in CLA intake was observed ($p = 0.041$), being the group with the highest VAT values, the one with the lowest fatty acid intake. Conclusions: This study suggests that CLA intake is associated with a better lipid profile and lower visceral adipose tissue volume, which contributes to the investigation of the effects of CLA on obesity parameters. However, it is necessary to investigate the effects of CLA from milk and dairy products in the control adiposity.

Keywords : adiposity, dairy products, diet, fatty acids

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