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[ADVANCED](#)[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1880-313X

PRINT ISSN : 0388-6107

**Biomedical Research**

Vol. 25 (2004) , No. 4 August pp.189-193

[\[PDF \(2705K\)\]](#) [\[References\]](#)**Relationship between lipid profile and lipid hydroperoxide levels in early stage type 1 diabetic patients**Ufuk ÇAKATAY<sup>1)</sup>, Refik KAYALI<sup>2)</sup>, Serpil SALMAN<sup>3)</sup>, Ahmet SIVAS<sup>1)</sup> and Ilhan SATMAN<sup>3)</sup>

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(Received July 1, 2004)

(Accepted July 24, 2004)

**ABSTRACT**

We studied 51 early stage type 1 diabetic patients and 48 healthy normolipidemic age-matched controls to examine the influence of lipid profile on lipid hydroperoxide levels. The type 1 diabetic patient group consisted of 12 prepubertal children, 18 adolescents, and 21 young adults who were free from any clinical evidence of retinopathy, nephropathy, or neuropathy. We determined serum triglyceride, total cholesterol, HDL (high-density lipoprotein)-cholesterol, LDL (low-density lipoprotein)-cholesterol, VLDL (very low-density lipoprotein)-cholesterol, apolipoprotein A-1, apolipoprotein B, lipoprotein (a) levels as markers of lipid profile, and lipid hydroperoxide levels (LHP) as markers of lipid peroxidation, and tried to show the relation, if any, between lipid profile and lipid peroxidation. Serum lipid profiles of three groups of diabetic patients were not different compared to their controls. However, LHP levels were increased significantly in adolescent and young adult type 1 diabetic patients compared to their controls. The significant increase in LHP levels in these two groups of patients was independent from their lipid profile parameters except triglycerides. The lack of difference in LHP levels in prepubertal diabetic patients and their controls might be explained by intense hormonal and metabolic changes during puberty.

[\[PDF \(2705K\)\]](#) [\[References\]](#)

To cite this article:

Ufuk ÇAKATAY, Refik KAYALI, Serpil SALMAN, Ahmet SIVAS and Ilhan SATMAN;  
“Relationship between lipid profile and lipid hydroperoxide levels in early stage type 1 diabetic patients”, *Biomedical Research*, Vol. **25**, pp.189-193 (2004) .

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doi:10.2220/biomedres.25.189

JOI JST.JSTAGE/biomedres/25.189

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