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Original Article

Serum Lipid and Blood Pressure Levels in Children and Adolescent Aged 3-18 Years old with History of Early Onset of Myocardial Infarction in Their Parents: A Case Control Study

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Abstract:

Objective: Atherosclerosis is a process that begins during childhood, progresses asymptotically, and generally shows no clinical manifestations until adulthood. Hyperlipidemia and high blood pressure have been associated with an increased risk of atherosclerosis and cardiovascular disease. The purpose of this study was to evaluate the serum lipid and blood pressure levels in children and adolescent aged 3-18 years with the history of early onset of myocardial infarction in their parents; and compared them with the control group.

Methods:Methods: This is a case-control study in which 209 individuals, 3-18 years old children and adolescents, with a family history of early onset of myocardial infarction as case group were selected and compared to 209 individuals, 3-18 years old children and adolescents, without the history of early onset of myocardial infarction as the control group. Their serum lipid and blood pressure levels were measured. Data was analyzed by SPSS software.

Findings: Mean cholesterol, LDL and triglyceride were 171.64, 112.26 and 97.32 mg/dl, respectively in the case group; 150.04, 104.82 and 181.57 mg/dl in the control group which showed significant difference. Mean HDL level was 38.86 mg/dl in the case and 39.59 mg/dl in the control groups which had no significant difference. Mean systolic and diastolic blood pressure were 110/22 and 71/84 mmHg in the case and 99/13 and 60/31 mmHg in the control group that shows significant difference.

Conclusion: Serum lipid and blood pressure levels in children and adolescents with a history of early onset of myocardial infarction in their parents are higher in the control group therefore these children are at high risk of coronary artery disease.

Keywords:

[Serum lipid](#) . [Blood pressure](#) . [Children](#) . [Parents](#) . [Early onset myocardial infarction](#)

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