

Correlations of the Inflammation Marker C Reactive Protein in Infants and Adolescents with Cardiac Risk Markers

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Received: 20 October 2021; **Accepted:** 25 November 2021

Citation: Abel Pereira, Anita Saldanha, Ana Paula Pantoja Margeotto, et al. Correlations of the Inflammation Marker C Reactive Protein in Infants and Adolescents with Cardiac Risk Markers. J Med - Clin Res & Rev. 2021; 5(11): 1-2.

ABSTRACT

The aim of this research was to determine whether the risk factors are associated with usCRP elevations in young girls and female adolescents. From a total of 2500 public school students a group of 150 were selected for having total cholesterol levels above 150 mg/dL and altered usPCR.

The positive correlations were: Sedentary Life, Abdominal circumference, Blood Pressure and Total Cholesterol. These results once more point to awareness measures regarding healthy lifestyle.

Keywords

usPCR, risk factors, children, adolescents, girls, inflammation.

Abbreviations

usCRP-ultrasensitive C Reactive Protein; TC: Total Cholesterol; BP: Blood Pressure.

Aims and Objectives

C Reactive Protein alterations both in acute and chronic infections as well association with major risk factors for cardiovascular disease. In children adolescents the literature is not so abundant and this article intends to show a bit more of the alterations related to risk markers [1-8].

The aim of this research is to determine whether the same risk factors are associated with usCRP elevations in young girls and female adolescents.

Methods

From a cohort of 2500 public school students, both male and female, ages varying from 2 to 19 years, a group of 177 girls were selected by belonging to the subgroup of total Cholesterol (TC)

level over 150mg/dL. TC was measured by point of care testing. Routine biochemical laboratory data was also collected as were Anthropometric Measurements and Blood Pressure (BP). CRP (ultra sensitive) values were obtained by immunonephelometric assay, expressed as g/L. Square Qui and Fisher's exact test.

Results

Positive correlation trends in the group of TC over 150mg/dL between usCRP (Mean ± Standard Deviation) levels and risk factors were found with:

Sedentary life (1.1 / 1.6 and 0.7 / 1.1); Abdominal Circumference (0.9 / 1.4 and 0.2 / 0.9); Blood Pressure (1.0 / 1.6 and 0.7 / 0.8); Triglycerides (1.1 / 1.7 and 0.7 / 1.1).

Conclusions

As usCRP in the group of young girls and female adolescents with Total Cholesterol values above the reference value of 150 mg/dL show stronger correlation when associated with overweight, sedentary life, higher blood pressure and higher triglycerides all intervention efforts should be geared towards healthy lifestyle.

References

1. Bass MJ, McWhinney IR, Donner A. Do Family physicians need medical assistants to detect and manage hypertension?. CMAJ. 1986; 134: 1247-1255.
2. Launer LJ, Hofman A, Grobbee DE. Relation between birth weight and blood pressure longitudinal study of infants and children. BMJ. 1993; 307: 1451-1454.
3. Barker DJ, Winter PD, Osmond C, et al. Weight in infancy and death from ischaemic heart disease. Lancet. 1989; 2: 577-580.
4. Whincup PH, Cook DG, Shaper AG. Early influences on blood pressure a study of children aged 5-7 years. BMJ. 1989; 299: 587-591.
5. Seidman DS, Laor A, Gale R, et al. Birth weight current body weight and blood pressure in late adolescence. BMJ. 1991; 302: 1235-1237.
6. Barker DJ, Osmond C, Golding J, et al. Growth in utero blood pressure in childhood and adult life and mortality from cardiovascular disease. BMJ. 1989; 298: 564-567.
7. Barker DJ, Bull AR, Osmond C, et al. Fetal and placental size and risk of hypertension in adult life. BMJ. 1990; 301: 259-262.
8. Strachan DP, Hart JT. Fetal and placental size and risk of hypertension in adult life. BMJ. 1990; 301: a552.