



Title: **Cardiometabolic risk factor in young university students**

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Editorial label ECORFAN: 607-8695
BCIERMMI Control Number: 2020-04
BCIERMMI Classification (2020): 211020-0004

Pages: 7
RNA: 03-2010-032610115700-14

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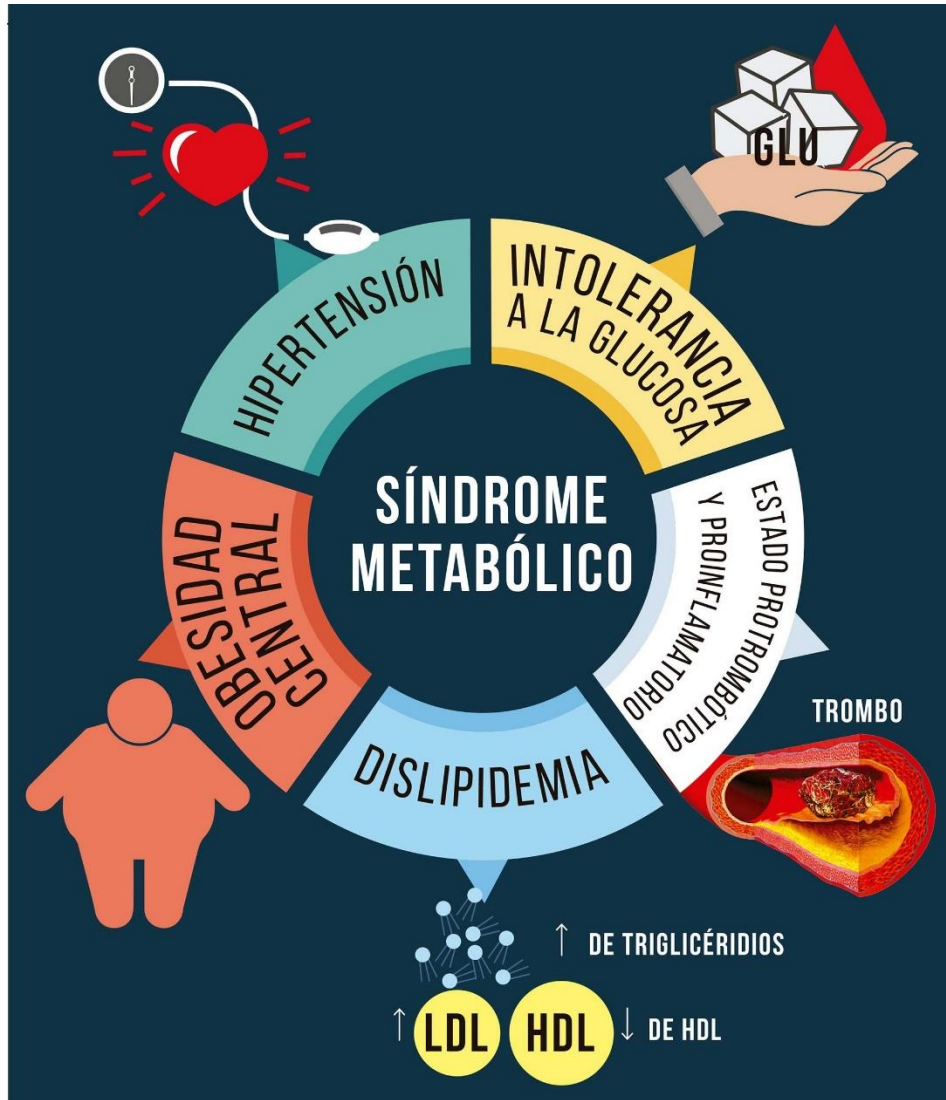
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Introduction

The concept of Metabolic Syndrome as such existed just a few decades ago, when in 1988 Gerald Reaven described a specific grouping of cardiometabolic risks

It has been associated with diabetes mellitus and cardiometabolic disease in adults. Among another group of alteration are considered as risk factors for cardiometabolic disease such as obesity, dyslipidemia, hyperglycemia, insulin resistance and arterial hypertension.

Metabolic Syndrome parameters



NCEP's Adult Treatment Panel III (ATP) coined the term as such to describe the presence of a set of factors of particular risk grouped at least 3 of them, these are: hyperglycemia, hypertriglyceridemia, central adiposity, hypertension and low high-density lipoprotein (HDL) cholesterol, as we can see in figure 1.

Figure 1. Metabolic Syndrome parameters. Obtain from: "Federación Mexicana de Diabetes". <http://fmdiabetes.org/>

The purpose of this work is to provide an overview of the current state of cardiometabolic factors in young student populations.

The relevance of this research was that when studying this population, the results can be the basis for the identification of risk factors. And provide recommendations for the health sector about the approach in this age group.

Methodology

Cross sectional analytical study. We determined HDL and triglycerides in a dry chemistry equip named Fujifilm drichem n500i and using the Friedwald formula, we estimated VLDL and LDL. For the diagnosis of Metabolic syndrome, we use the ATP-III criteria

Results

We recruit 519 students who comply the selection criteria, 63.4% females and 36.6% males. We found a prevalence of elevated LDL of 51.64% and metabolic syndrome of 3.6%. We also did the association of each metabolic syndrome parameter with this disease and found OR of 100.5 ($p < 0.00001$ IC: 13.20 – 763.8) with abdominal obesity.

Conclusions

Most prevalent risk factor in young student are the HDL deficit and the elevation of LDL, afterwards, abdominal obesity.

The prevalence of metabolic syndrome is low 3.6%, but the presence of 1 to 2 parameters increase up to 50%. Prevention is necessary in all groups but act timely could make the difference.

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