Objective: To evaluate the prevalence of metabolic syndrome in an indigenous Brazilian population.

Methods: Indigenous Brazilians aged 18-69 years from Jaguapiru Village, Dourados, MS were studied. Participants were selected by simple random sampling of 360 houses in the village. The abdominal circumference of the population was evaluated, and measurements <80 cm for females or <90 cm for males were considered normal. Capillary blood glucose levels by glucometer and oral glucose tolerance tests were measured, and, when necessary, total cholesterol, HDL cholesterol and triglyceride levels were assessed.

Results: Of the 632 indigenous Brazilians in the study, 281 were males. We observed that 287 (45.4%) presented abdominal circumference values greater than normal; of those, 199 were women (43.4% of all women in the study) and 88 were men (26.1% of all men in the study).

Conclusion: Metabolic syndrome is common in the Indian Jaguapiru Village. (Ethn Dis. 2011;21(3):301–306)

Key Words: Metabolic Syndrome, South American Indians, Diabetes Mellitus, Hypertension, Obesity

INTRODUCTION

Global changes in lifestyle and dietary habits that have occurred in the second half of the 20th century have contributed to the increased incidence of several chronic diseases, altering the epidemiological profile of several populations. The Brazilian indigenous communities (ie, Indian tribal descendants, from the country’s native inhabitants at the time of the European discovery of Brazil) may be in this situation.

Metabolic syndrome is a heterogeneous clinical entity that encompasses components such as abdominal obesity, insulin resistance, arterial hypertension, type 2 diabetes, and dyslipidemia, and increased risk of cardiovascular atherosclerosis disease. Adipose tissue, an important endocrine organ, plays a major role in the genesis of insulin resistance and is involved in metabolic syndrome. Diabetes mellitus and impaired glucose tolerance cause decreased life expectancy. In adults, the risk of death from any cause is 40% higher in individuals with impaired glucose tolerance, compared to those with normal glucose levels. Alterations in glucose metabolism, arterial hypertension, chronic inflammation and endothelial dysfunction, all of which interact in complex ways in the blood vessels, are important in the genesis of arteriosclerosis. The control of these risk factors significantly reduces the mortality related with arteriosclerosis.

The prevalence of metabolic syndrome worldwide is estimated to be around 25%, but it can reach 42% in individuals older than aged 60 years. In the municipality of Vitoria (ES), a survey conducted between 1999 and 2000 found a prevalence of 29.8% in adults aged 25–64 years.

Little epidemiological information is known about metabolic syndrome in indigenous Brazilian populations, however, reports from studies on the cardiometabolic risk of many indigenous communities suggest that this is a growing health problem.

Our study establishes the prevalence of metabolic syndrome among an indigenous Brazilian population in Jaguapiru Village. With this information, appropriate measures to control cardiovascular disease risk factors can be implemented, thereby preventing its complications.

METHODS

This cross-sectional study on the prevalence of metabolic syndrome in the Jaguapiru indigenous village, which is part of the Dourados indigenous reserve (MS), took place between April 2008 and October 2009.

The diagnosis of metabolic syndrome was based on the presence of an abdominal circumference >80 cm