INTRODUCTION

Oxidative stress is known to be a risk factor of atherothrombosis (1-2). A number of studies have attempted to demonstrate the efficacy of anti-oxidants in primary prevention of this condition (3). The recent introduction of ultrasonography-B for the detection of the early stages of arterial damage is a major advance for detecting the preclinical stages of atherothrombotic disease (4-5). It is now possible to identify and study populations at risk, have a precise appreciation of their anti-oxidant status, measure the intima/media thickness of their carotid arteries (6), and evaluate the effects of the anti-oxidant supplementation with GliSODin, the first orally effective SOD (7-11). This new automated technology is a major improvement in primary prevention and it helps to appreciate the eventual important role played by anti-oxidants in this prevention; it allows for a follow up on carotid arteries, with an automated method that measures the intima-media thickness.

MATERIAL AND METHODS

Subjects and Design of Study

The population selected for the study was made of seventy-six patients without clinical signs/symptoms of cardiovascular disease, but who were considered to be at risk because of:
- Family history of stroke;
- Height/weight ratio >20-30% above normal range, considering BMI.

Inclusion criteria included:
- Systolic arterial blood pressure >160mm Hg;
- Diastolic arterial blood pressure: >90mm Hg;
- Total serum cholesterol: >2.5g/l;
- Serum triglycerides: >1.28g/l;
- LDL Cholesterol: >1.4g/l;
- Intima media thickness: >0.7mm.

All these values are considered to be associated with a significant clinically-relevant risk of atherothrombosis (1).