



Metabolic syndrome in users of a Community Pharmacy

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Introduction

Metabolic syndrome (MetS) includes metabolic abnormalities such as dyslipidemia, hypertension, and diabetes mellitus and abdominal obesity that were revealed to be major risk factors of cardiovascular diseases¹

The aim of the study was describe the prevalence of MetS risk factors in users of a Pharmacy of Bragança, using the criteria proposed by the ATP-III².

Materials and Methods

- Cross-sectional study
- Sample: 80 adult population of Bragança, of both gender, users of a Community Pharmacy

- Collecting data

(1) Questionary:

- ☒ alcohol, tobacco, drugs consumption and diet

(2) Anthropometric and biochemical parameters

- ☒ Weight, height (BMI calculation)
- ☒ Waist circumference
- ☒ Blood pressure determination
- ☒ Glycemia determination
- ☒ Total Cholesterol determination

It was considered to have MetS if presented three or more of the following features²:

1. **Waist circumference** > 102 cm (men) and > 88 cm (women);
2. **Total Cholesterol** >190 mg/dL;
3. **Systolic blood pressure > 130 and/or Diastolic blood pressure > 85 mmHg;**
4. **Fasting Glucose** > 110 mg/dL.

References

1- Takahara M & Shimomura I, Rev Endocr Metab Disord, 2014 Sep 30.

2- *Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III)* (2002) [Electronic version]. NIH Publication No. 02-5215 <http://www.nhlbi.nih.gov/guidelines/cholesterol/atp3full.pdf>

Results

Gender: 61% female

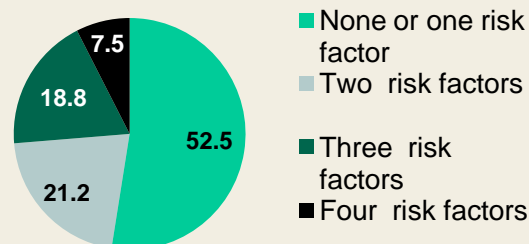
Age: 60-69 (35.0%); >69 (26.3%); 50-59 (16.3%)

Diet: 66% do not

BMI : Overweight (11.2%); Obesity (2.2%)

Alcohol: 51% of consumption

Smoking: 31%



	Metabolic syndrome risk factors (%)		
	Total	Male	Female
Waist Circumference	33.7	33.3	66.7
Total Cholesterol	45.0	36.1	63.9
Blood Pressure	46.2	40.6	59.45
Fasting Glucose	35.0	57.2	42.8
4 Risk Factors	7.5	9.7	6.1

Fig. 1- Prevalence of MetS Risk Factors

Conclusions

The high prevalence of MetS risk factors found in this study alerts for the diagnosis and treatment of the MetS, retarding and preventing future consequences like diabetes and cardiovascular disease. As MetS is recognized as a cause of high morbidity and cardiovascular mortality in Portugal, the present study becomes to important, due the lack of studies in this area.