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## Introduction

Ischemic cerebral infarction (ICI) in young adults continues to be a complex and heterogeneous pathology, associated with diagnostic errors in the identification of its initial clinical manifestations. Epidemiological studies indicate an increase in the incidence of ICI in young people, with a significant socio-economic and psychosocial impact.

## Objectives

The objective of our study is to determine the risk factors, clinical manifestation, pathological mechanisms and in hospital evolution of young patients with acute cerebral infarction.

## Materials & Methods

A retrospective and descriptive study was carried out of 104 patients with a diagnosis of ICI aged between 19-45 years, admitted to the Neurology Service of a University Hospital in Curitiba, Brazil, during a period of four years. We analyzed the data from the ICI protocol with demographic and clinical data.

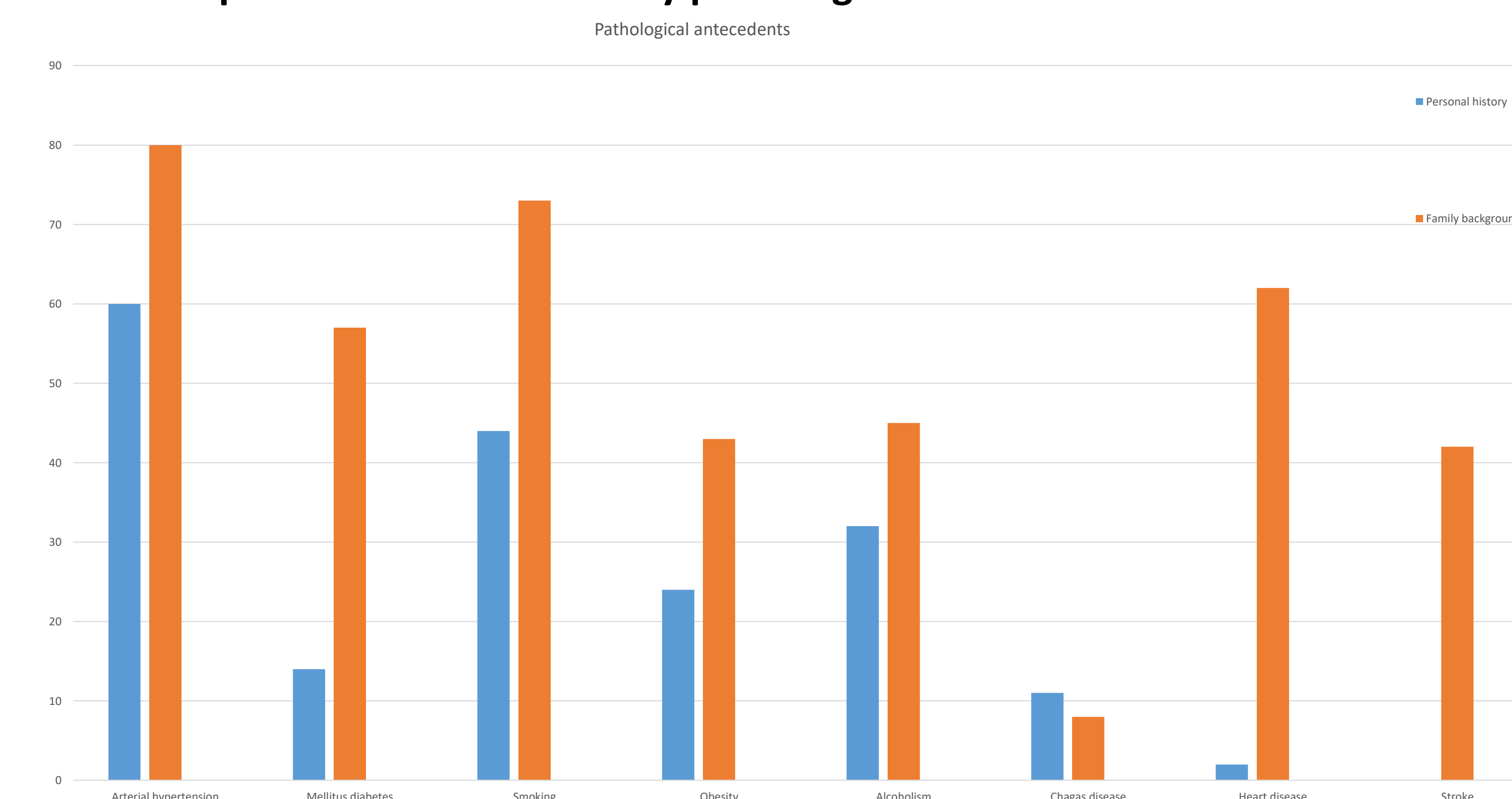
## Results

Young adults with ICI represented 11.2% of the total number of patients treated with this pathology in our hospital in the same period. We studied 53 men with an average age of 39.3 years and 51 women with an average age of 36.9 years. Motor impairment (hemiplegia or hemiparesis) was the most frequent clinical manifestation on admission, followed by aphasia and altered consciousness. All patients were admitted between 2 hours to 24 hours from the beginning of their clinical manifestations. The anterior circulation was the most compromised (85.8%).

Table 1. Clinical manifestations on admission.

Clinical manifestations	Number of cases	%
Hemiplegia / hemiparesis	92	88,5
Aphasia / Dysphasia	51	49,0
Alteration of consciousness	19	18,3
Hemianesthesia / hypoaesthesia	11	10,6
Homonymous hemianopia	7	6,7
Seizures	5	4,8
Anisocoria	3	2,9
Conjugated gaze deviation	1	0,96
Ataxia	1	0,96
Dismetria	1	0,96

Graph 1. Personal and family pathological antecedents.



## Discussion

In young adults, atherosclerotic disease is considered the main cause of stroke, associated with smoking, dyslipidemia, and systemic arterial hypertension. Unlike adults over 65 years of age, the abuse of toxic substances (cocaine, alcohol, marijuana), embolic heart disease, migraine, thrombophilia (hypercoagulability), vasculitis, artery dissection and use of hormonal contraceptives are considered as the main factors.

## Conclusions

Hypertension, use of oral contraceptives, smoking, alcoholism, obesity and dyslipidemia, as well as complementary examination showing any degree of concentric left ventricle hypertrophy, hyperfibrinogenemia and elevated erythrocyte sedimentation rate were important isolated factors regarding the occurrence of ICI in young adults. Carotid stenosis doesn't seem to be a contributing factor while a possible cardioembolic cause was an outstanding finding in our study.