



# ECHOCARDIOGRAPHIC LEFT VENTRICULAR HYPERTROPHY IN ISCHEMIC STROKE OR TIA: MORE THAN A SIMPLE TARGET ORGAN DAMAGE



**OWONA A**<sup>1,3, 2,4</sup>, NGARKA L.<sup>2,3</sup>, ANYOUZO'O ELLA S.Y.<sup>3</sup>, A. MENANGA<sup>1,3</sup>

<sup>1</sup>Cardiology Unit, Yaoundé General Hospital, Cameroun

<sup>2</sup>Neurology Unit, Yaoundé General Hospital, Cameroun

<sup>3</sup>Faculty of Medicine and Biomedical Sciences, University of Yaoundé I, Cameroun

**Corresponding Author:** Amalia Owona, cellphone: (+237) 682.48.55.92. Email: amowona@yahoo.fr

## INTRODUCTION

Left ventricular hypertrophy (LVH) priorly described as an adaptative response of the left ventricular muscle to hypertension is an independent risk factor of stroke. The goal of the current study was to determine the prevalence of LVH in patients with stroke by echocardiographic study and to assess the importance of LVH in these patients.

## METHODS

We carried out a cross-sectional study from december 2021 to september 2022 at Yaoundé Central Hospital and Yaoundé General Hospital. A multivariate logistic regression was used to identify independent factors associated with LVH and stroke.

## RESULTS

Variables (N=316)	Value
Age in years, mean $\pm$ SD	61 $\pm$ 12
Sex ratio (M/F)	1.32
Prevalence	
• Ischaemic stroke	40%
Cardiovascular risk factors	
• Hypertension	79.1%
• Diabetes mellitus	3,1%
• Alcohol intake	92%
• Obesity	53%
• Hypercholesterolemia	48%
Echocardiography findings	
• Left ventricular concentric hypertrophy	95%
Factors associated with LVH and stroke	
• Hypertension Diagnosis and stroke delay	$p = 0.0204$
• Initial systolic and diastolic values	$p = 0.0071$

## CONCLUSION

LVH is a common finding in patients with stroke and are associated with the delay between the diagnosis of hypertension and the occurrence of stroke abd with the initial value of systolic and diastolic pressures. Further studies must be carry out in order to determine the real impact of associated factors on LVH.

**Key-Words :** Left ventricular, Stroke, Electrocardiogram, Echocardiography, Cameroon