

# Impact of the micro nutriment's deficit on the functional disorders for diabetic menopause women

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## Introduction and objective of the study :

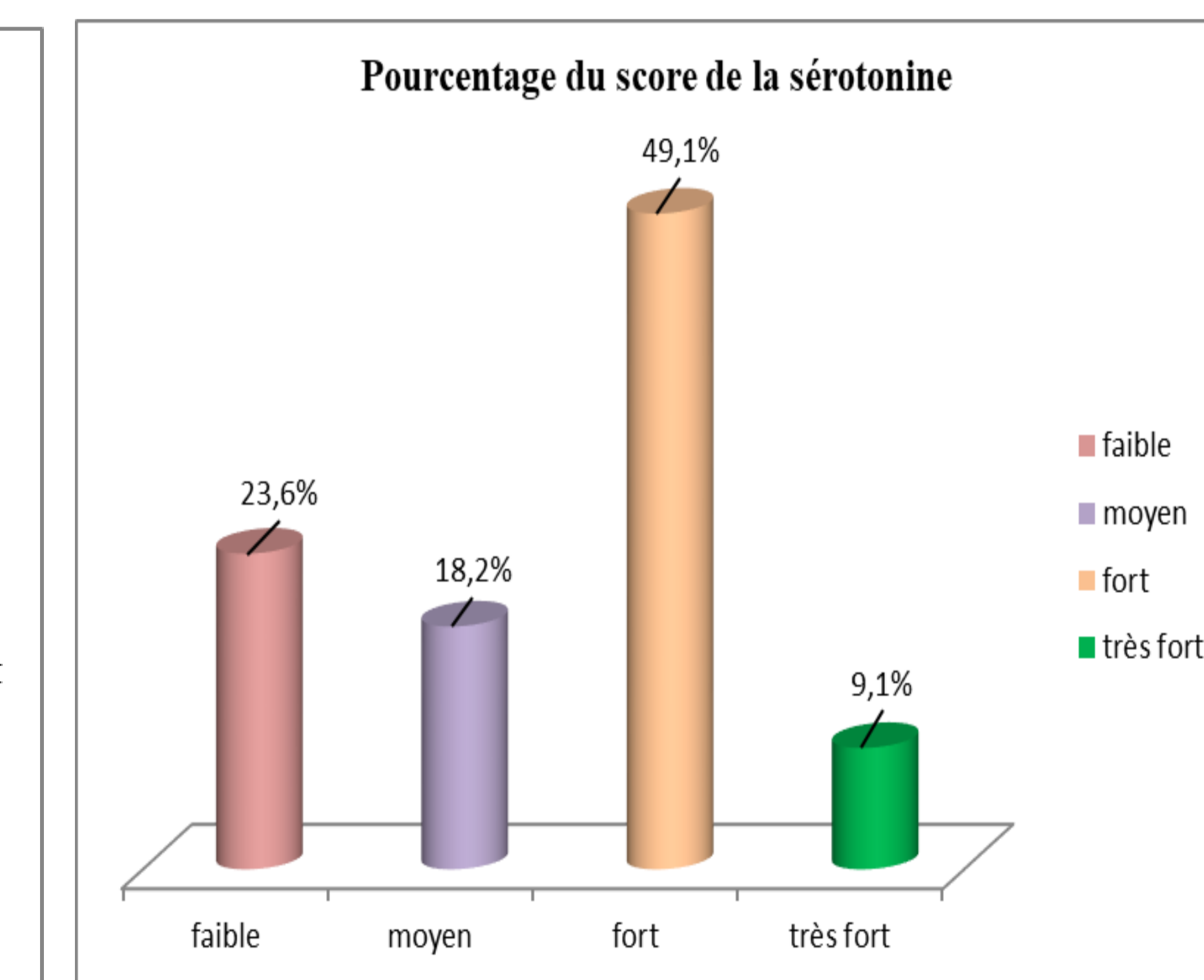
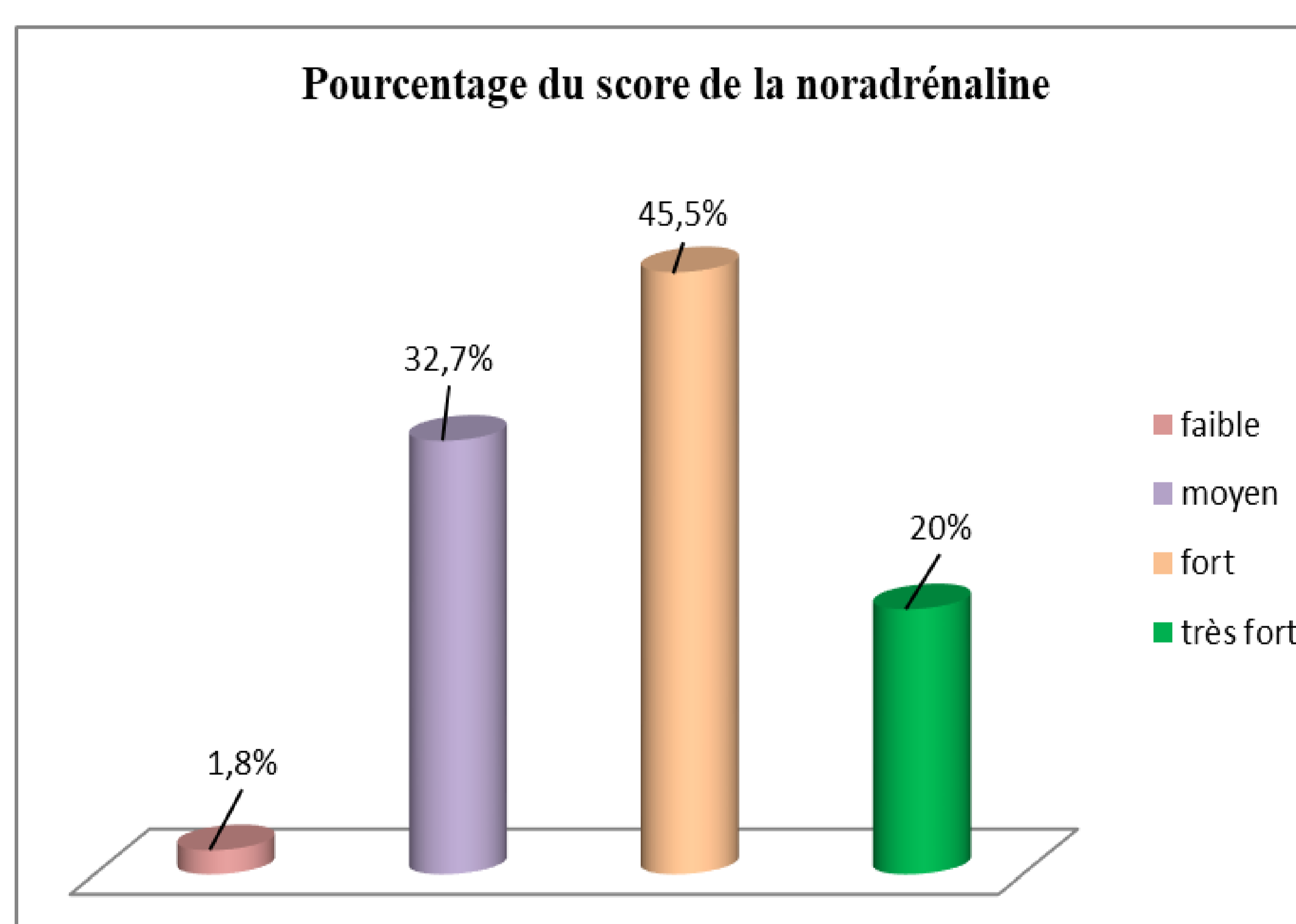
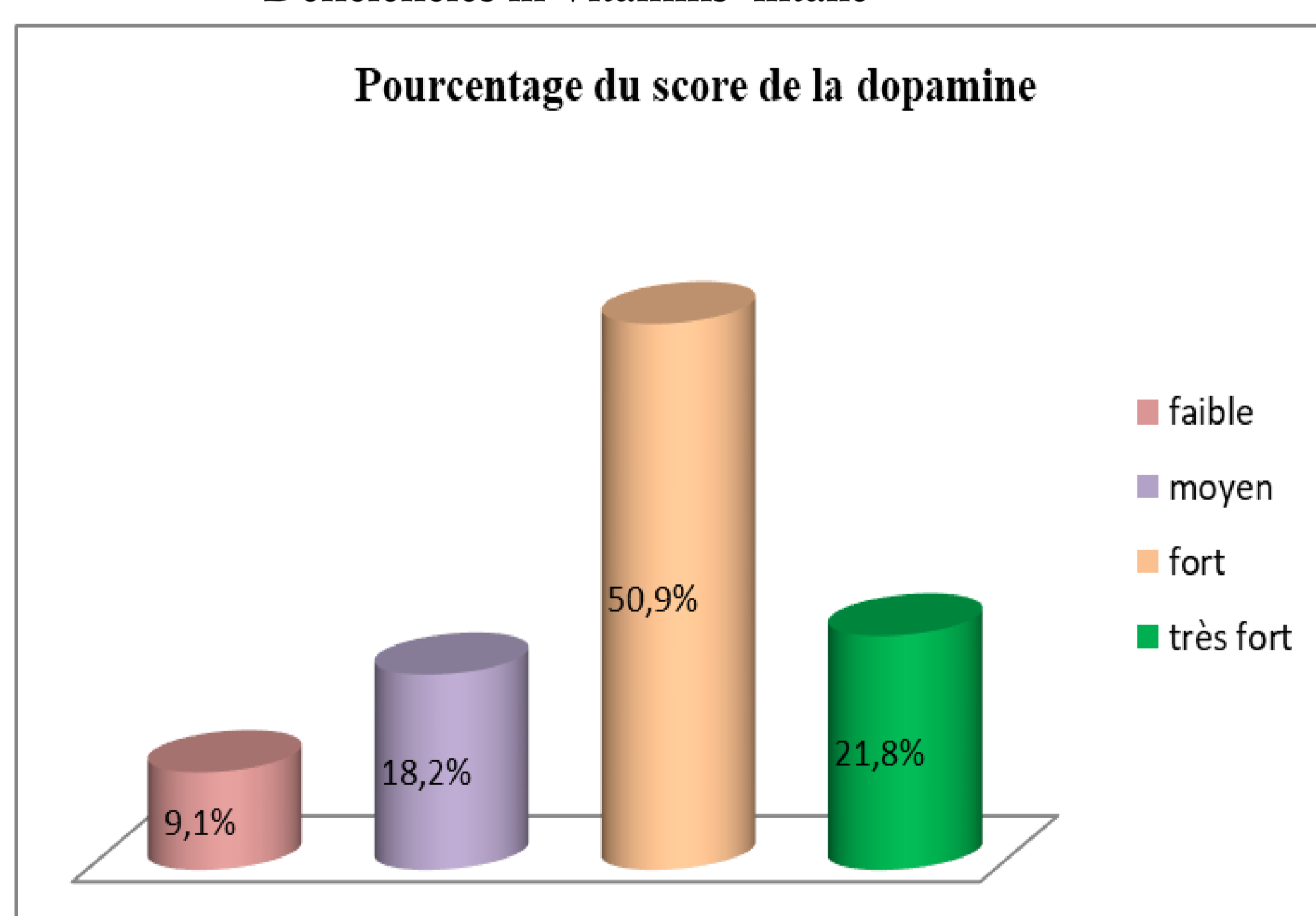
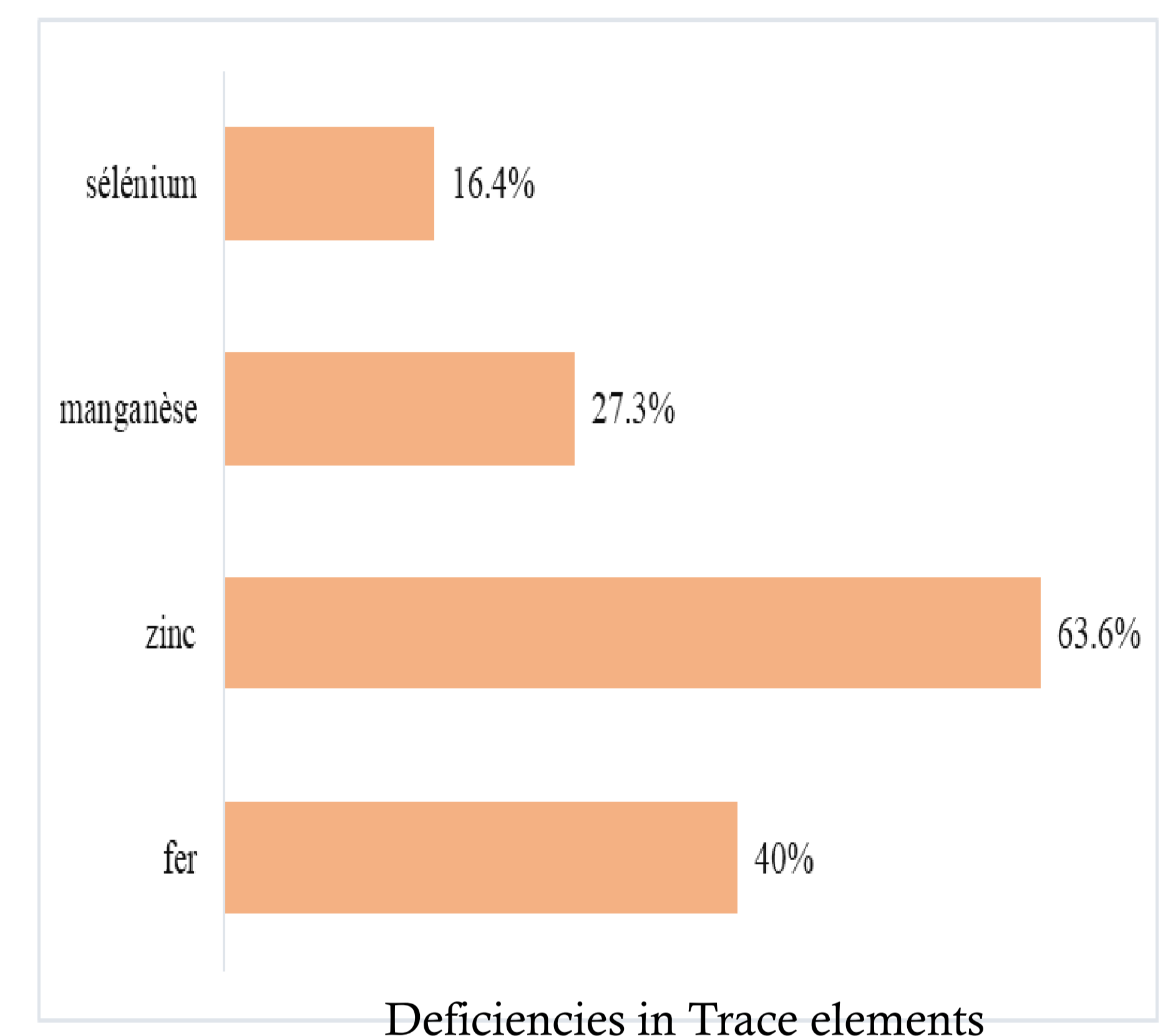
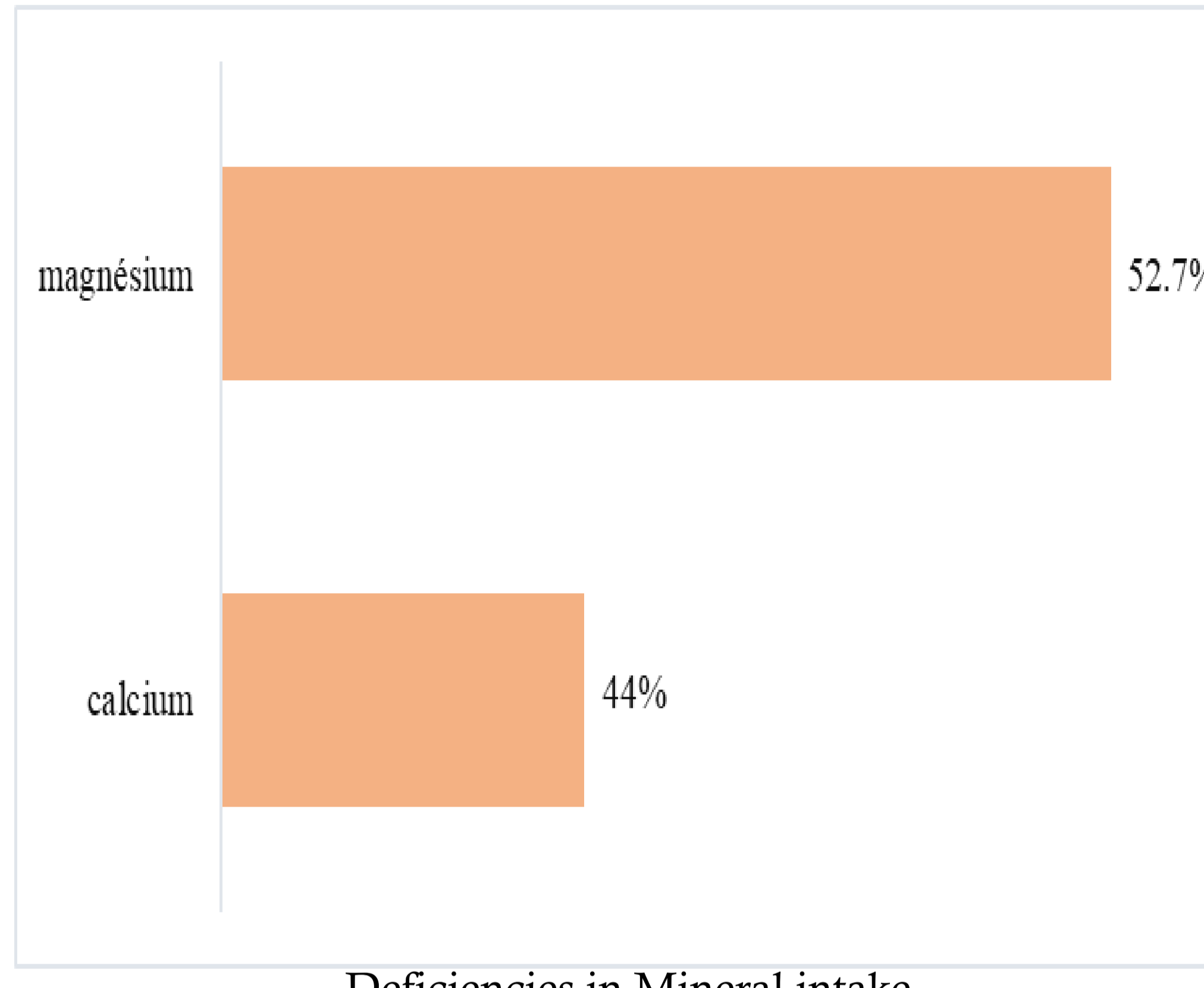
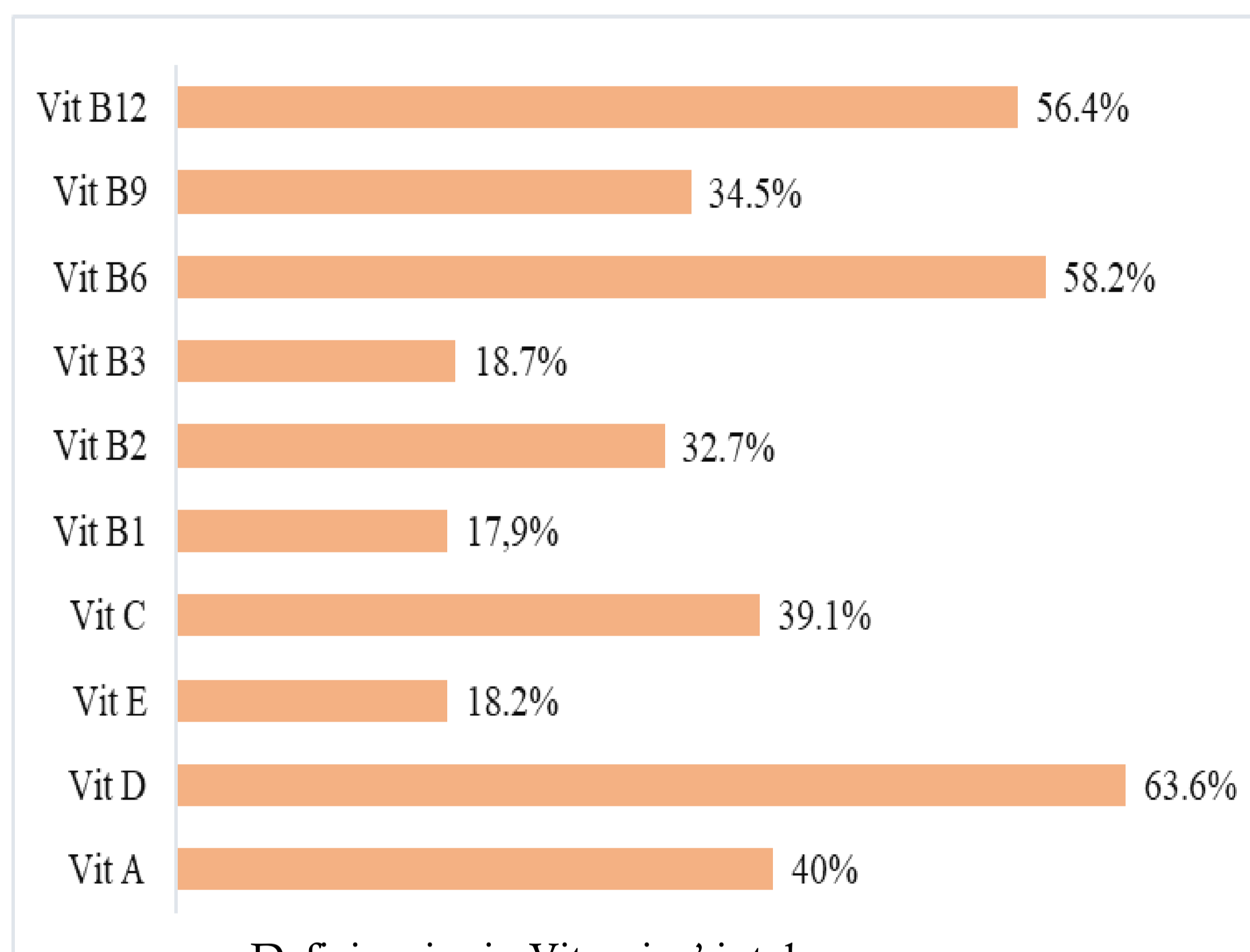
- ❖ Menopause can contribute to a variety of functional disorders such as fatigue, mental health disorders and sleeping problems. This is mainly due to a deficit in neurotransmitters' synthesis, which can be explained by a frequent micronutrient deficiency during this stage of life for women.
- ❖ The aim of this study is to detect the micronutrients' insufficiency for diabetic menopause women and study its impact on the functioning of the brain.

## Methods :

- ❖ It consists of a transversal descriptive study elaborated within the National Institute of Nutrition of Tunis. This study included 100 diabetic menopause patients. They went through a dietary survey. Patients answered to a DNS questionnaire (Dopamine/ Noradrenaline / Serotonin) that have been approved by the European Institute of Dietetics and Micro nutrition to measure the impact of food on brain functioning.

## Results :

- ❖ The average age of the study population was around  $63.67 \pm 6.52$  years old.
- ❖ The average duration of diabetes is around  $11.64 \pm 5.73$  years old.



Distribution of population according to Dopamine score

Distribution of population according to Noradrenaline score

Distribution of population according to Serotonin score

	Coefficient of Correlation r	P
Vit B6	-0,139	0,312
Vit B9	-0,206	0,131
Fer	-0,268	0,048
Magnésium	-0,247	0,069
Zinc	-0,2	0,143
Cuivre	-0,244	0,073
Sélénium	-0,317	0,018

Micronutrient intakes and the Dopamine score

	Coefficient of correlation r	p
Vit C	-0,174	0,204
Vit B6	-0,005	0,973
Vit B9	-0,232	0,089
Magnésium	-0,19	0,165
Fer	-0,177	0,197
Zinc	-0,181	0,185
Cuivre	-0,338	0,012

Micronutrient intakes and the Noradrenaline score

	Coefficient of correlation r	p
Vit B2	-0,174	0,204
Vit B3	-0,193	0,158
Vit B6	-0,604	<0,01
Vit B12	-0,052	0,705
Magnésium	-0,243	0,073
Fer	-0,340	0,011
Zinc	-0,349	0,009

Micronutrient intakes and the Serotonin score

## Conclusion :

It is crucial to detect the micro nutritional deficit from diabetic menopause women and to satisfy their micronutrient needs, by a diversified diet to assure an optimal functioning of the brain.

The author has declared no conflict of interest.