NUTRITIONAL PERFORMANCE OF FOOD REGIMES BASED ON LOCAL PRODUCTS IN THE REHABILITATION OF UNDERFED RATS

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PLAN

INTRODUCTION

Specialized food products (SFP) such as PlumpyNut, Sup Plumpy and com Soya Blend are unequally distributed in areas with high prevalence of malnutrition. Services providing these products often experience shortages that not only endanger children who are undergoing nutritional teatment and especially those who should have access to them (Doumbia, 2008; Dembélé, 2012;) . One of the reasons for these breaks is the shortage of the raw materials necessary for the manufacture of these products. The diversification of these raw materials is therefore a way to explore. This study aims to evaluate the nutritional performance of diets based on local products in the nutritional management of malnourished rats.

OBJECTIF GENERAL

Evaluate the performance of food-based diets based on local products.

MATERIAL AND METHODS

❖The animals used in all our experments are male wistar rats in growth. They were raised in the animal house of the UFR Biosciences and housed in groups in plexiglass cages.

❖Foods were composed of rice, millet, sorghum, corn, pistachio, soybean, cowpea, oil, sugar, anagobaka and plumpynut

MATERIAL AND METHODS

Figure 1.Box of the Anagobaka

Figure 2. plumpynut bag

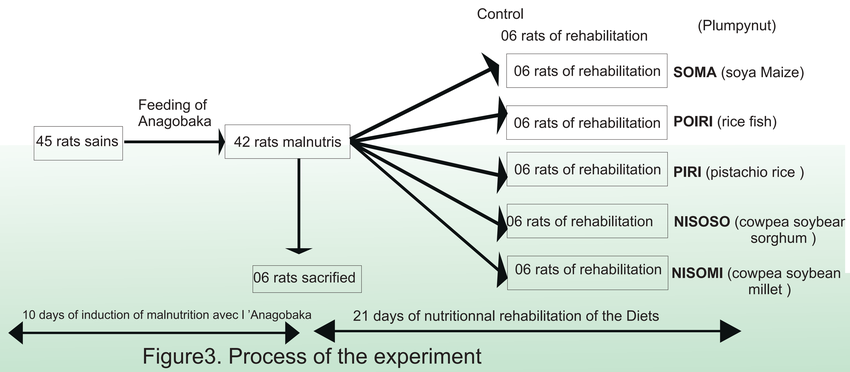

Figure3. Process of the experiment

RESULTATS (1)

❖ Growth parameters (1)

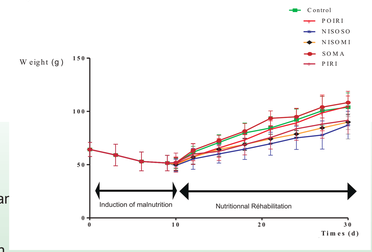

Figure 4.
Growth curve of rats under different regimes

RESULTATS (2)

❖ Growth parameters (2)

Parametters	Weight gain	Total Protein	Protein Efficiency Coefficiey
Témoin	$2,64 \pm 0,61^{a}$	$0,92 \pm 0,24^{a}$	$2,90 \pm 0,11^{a}$
SOMA	$2,82 \pm 0,73^{a}$	$1,04 \pm 0,43^{a}$	$2,73 \pm 0,12^{ab}$
POIRI	$2,69 \pm 0,85^{a}$	$0,98 \pm 0,31^{ab}$	$2,86 \pm 0,43^{ac}$
PIRI	$2,03 \pm 0,48^{a}$	$0,83 \pm 0,2^{a}$	$2,44 \pm 0,21^{bc}$
NISOSO	$1,99 \pm 0,72^{a}$	$0,91 \pm 0,32^{a}$	$2,05 \pm 0,39^{b}$
NISOMI	$1,89 \pm 0,29^{a}$	$0,89 \pm 0,14^{a}$	$2,23 \pm 0,78^{ba}$

Each value is the average, followed by the standard deviation of six rats.
[a,b]: there is no significant difference between two values of the same column topped with the same letter.

RESULTATS (3)

❖ dry substance ingested and coefficient of dietary efficacy

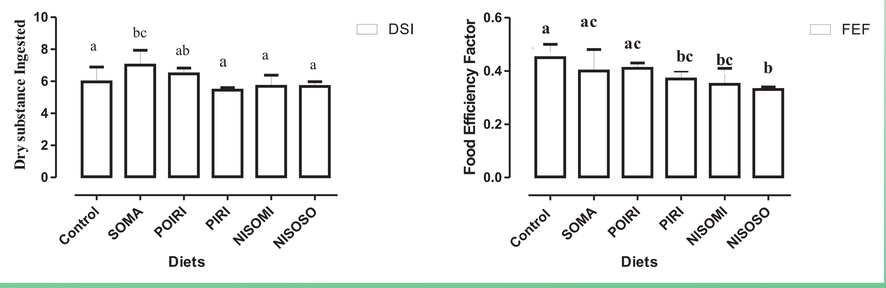

Figure 5. Diagram of dry substance ingested of rats under different diets

Figure 6. Diagram of the dietary efficiency coefficient of rats under different diets coefficient dietary

Each value is the mean ± standard deviation of six rats.
A, b, c; there is no significant difference between two values of the same diagram surmounted by the same letter

CONCLUSION AND PERSPECTIVES

The DMI, TPI, WG, FEFand PEC have allowed the evaluation of the growth performance of tmalnourished rats under different regime

The results indicate that experimental diets have similar or even better performances than plumpynut. The most efficient regime is soybean maize (SOMA)

Further studies are needed to verify whether the consumption of these diets has no pathological consequences for the regulating organs of nutrition

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