



Retrospective Analysis for Taste, Tolerability and Efficacy Within a Low Calorie Diet with Spaghetti for Special Medical Purposes (Afms)

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ABSTRACT

The maintenance and control of body weight loss are finely regulated by the interaction of a series of biochemical processes, which include homeostatic, environmental and behavioral factors. To maintain weight loss during over time, subjects must become aware of the physiological adaptations, which would favor their recovery, and then apply dietary strategies capable of modulating insulin, tryptophan, ghrelin and leptin, hormones that intervene to reduce the dreaded 'yo-yo effect'. Spaghetti plays an important role in human nutrition, also in nutritional programs for weight loss or maintenance because it is considered a balanced food

in diets for calorie content, about 360 Kcal / 100gr, for low-medium glycemic index and for frequent use in Italian cuisine. The nutritional properties of spaghetti can improve and vary considerably in relation to the ingredients, drawing, rolling and drying. There are many works concerning the integration of pasta products obtained from wheat with unconventional raw materials with a high content of micronutrients and for this reason we realize how pasta, given its widespread use, ease of use, its shelf life and its intrinsic food value (Antognelli, 1980) can be improved with nutritional principles to be considered as a functional food. After bread, spaghetti is the most common a food product widespread even outside the Italian borders. In a context of low-calorie dietary models, pasta, given its low glycemic index (GI), enriched with micronutrients could improve and help reducing body weight and body mass index (BMI) compared to a standard dough.

Keywords: Health education, cardiovascular disease, cardiovascular risk factors, modifiable risk factors, cardiovascular risk.

RAW MATERIALS AND TECHNOLOGICAL PROCESS

Raw materials and technological process for similar pasta making for dough, extrusion and drying.

MATERIALS AND METHODS

Study design

Study is developed to evaluate the potential of a balanced low-calorie food program. For the study we compared two homogeneous groups treated with pasta enriched in Hemp flour-Griffonia-Beta Glucan, which favoring the microbiota and the production of serotonin, helps to maintain a normal mood and to control the sense of hunger. These characteristics, in a low-calorie food program, could represent for the obese a discriminating element for the success of the selected diet, both in terms of weight loss in fat mass, and for the maintenance of lean mass. Integration with unconventional foods improves adherence to the program and increases motivation for the speed in which the waist circumference is reduced, usually due to an overproduction of insulin. This strategy would help neutralize the action of the "anabolic" hormone, and counteract the "yo-yo effect". The aim of this work is to evaluate the modulation of the biological mechanisms underlying the control and maintenance of weight in the obese.

Object

Short-term efficacy of a diet integrated with enriched pasta versus traditional pasta in a weight loss educational program that includes a support in lifestyle and behavior modification in overweight-obesity individuals.

Materials and methods

Numero della visita	T ₀ Start-Up	T ₁	T ₂	T ₃
Informed consent	X			
Medical history and / or drug use	X			X
Intestinal permeability test	X			X
Self Monitoring Glucose	X			X
Self Monitoring P.A.	X	X	X	X
Bioimpedance analysis	X	X	X	X
Eco-Adipometry	X			X
Assessment of laboratory tests	X			X

Total of 20 patients (10 men and 10 women), range of age 25-65, who spontaneously started a food treatment at our dietary service during the period of 01 to 30 March 2021.

10: Control (Balanced low-calorie normoproteic diet).

10: Balanced low-calorie normoproteic diet with insertion of enriched spaghetti.

Inclusion criteria

- Males and females between the ages of 25 and 65 with a BMI > 24.5
- Patients with no drug support.
- Cognitively intact patients.
- Patients capable to follow protocol directions during the study.

Exclusion criteria

- Inability to understand and want.
- Presence of pathologies not consistent with the protocol

RESULTS AND DISCUSSION

The interventional weight loss program based on an integrated diet is more effective in promoting weight reduction and improving metabolic control than a standard low calorie diet. Both groups performed well on their assigned feeding program. There were no significant differences in laboratory safety parameters between the two groups, including urine. Creatinine and blood urea nitrogen did not change significantly from baseline or between groups. Weight loss and waist circumference reduction in the diet + spaghetti meal group were significantly greater than in the control subjects (both $P < 0.001$). The decline in HbA1c and glycemic control was greater in the spaghetti group ($P < 0.05$). No mild or moderate adverse events were reported. Based on the data obtained, 16% of patients changed their lifestyle reaching a defined healthy standard, while 84% improved their lifestyle habits without reaching this standard in the control group, while in the spaghetti group 26 % changed their lifestyle reaching a defined healthy standard, while 74% improved their lifestyle habits without reaching that standard. Only 3% of the sample did not receive any kind of health education. These patients did not change their lifestyle.

CONCLUSIONS

The use of enriched spaghetti was well accepted by all participants. The use of these products together with a standard diet seems to have increased the motivation and compliance of the subjects. The fast weight loss, as well as the reduction of hunger in the first few days, allows the patient to constantly strengthen his motivation and to avoid the discouragement and failures typical of slow weight loss. Furthermore, the patient is not forced to choose food, but is channeled towards a specific choice of foods with excellent palatability, specifically designed to meet the needs and tastes of patients. The study underlines the importance of educational intervention and its positive effect on people's health. The health education intervention could be managed autonomously, dedicating adequate time to the transmission of information to the patient and his family.



ALLEGATO**ANAGRAFICA:**

Nome e Cognome(iniziali): Et : Data di Nascita: / / Sesso: M F

Diagnosi di ingresso:

Tipo di intervento:

Data dell'intervento: / / Data Follow up: / / Diabetico: SI

NO in trattamento con: insulina

ipoglicemizzanti orali

Riabilitazione cardiologica: SI NO

Familiarit  per cardiopatia ischemica precoce: SI NO Precedente ricovero per cardiopatia

ischemica: SI NO Pregressa rivascolarizzazione coronarica: SI NO

Ha ricevuto educazione sanitaria riguardo alle modifiche dei fattori di rischio: SI NO Informato

da: Quando:

FATTORI DI RISCHIO MODIFICABILI:

	Prima dell'intervento	Follow up a mesi
Pressione Arteriosa	mmHg	mmHg
Colesterolemia totale	mg/dl	mg/dl
Peso Altezza BMI	Kg Cm Kg/ m ²	
Attivit� Fisica	min/die volt/sett	min/die volt/sett
Fumo di sigaretta	N�	N�
Glicemia (se diabetico)	mg/dl	mg/dl
DIETA	Prima dell'intervento	Follow up a mesi
Frutta/verdura	volt/die volt/sett	volt/die volt/sett
Carne/insaccati	volt/die volt/sett	volt/die volt/sett
Caff�	volt/die volt/sett	volt/die volt/sett
Dolci	volt/die volt/sett	volt/die volt/sett
Alcolici		
-vino	bicch/di volt/sett	bicch/die volt/sett
-altro:	e volt/sett bicch/di e	bicch/die volt/sett

Allegato 1-Scheda raccolta dati

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