MINERVA MED 2001;92(Suppl. 1 al N. 3):95-7

Vimang® as natural antioxidant supplementation in patients with malignant tumours

D. TAMAYO. E. MARI, S. GONZALEZ, M. GUEVARA, G. GARRIDO, R. DELGADO, R. MARCHIOLI, A. J NUÑEZ

The use of medicinal plants as science to solve problems of health is known from remote times and even at the present time the plants are an important source of medications because may provide symptoms control and palliation in many disorders with minimal or no side effects. Considering the ethnic use of the different parts of Mangifera Indica L. (Mango's tree), the wide distribution in tropical and sub-tropical region, particularly in Cuba, and phytochemistry, pharmacological, toxicological, and ethnomedical experience in relation with it, we decide to study some different formulations as a natural supplementation. Cancerous process involves an overgrowth production of oxygen free radicals and VIMANG" (formulation of bark Mango's tree) has antioxidant properties that lead to an improvement of the quality of life in patients with malignant tumours. A total of t 123 patients diagnosed with cancer was recruited and received for six months a supplement with VIMANG". The evaluation of quality of life was made trough Depression Index, Integral Evaluation that includes haematological, biochemistry, total antioxidant status and clinical symptomalogy and Karnofsky's Index an indicator of performance status. The results show that the 87 % of patients achieved a significative improvement in the total of evaluated parameters without adverse events manifestation. For these reasons we can conclude that VIMANG" supplement has a high potentials for its introduction in clinical practice as alternative therapy. Type of presentation: POSTERS.

Clinical Trials Unit, Laboratory of Pharmacology. Centre of Pharmaceutical Chemistry, 200 st and 21 Ave, P.O Box 16042, Havana. CUBA. Laboratory of Clinical Epidemiology of Cardiovascular Disease. Consorzio Mario Negri Sud. Via Nazionale 66030, Santa Maria Imbaro (CH). ITALY

Introduction

From remote times the use of medicinal plants as science to solve problems of health is known. At the present time the plants constitute an important source of medications, that justifies the investigation thoroughly in clinical studies. In this type of studies are included traditional practitioners, physicians and investigators and all the efforts are lead, fundamentally, to systematise, to standardise and to process empirc medications based on vegetables and natural compounds local that require of other studies before incorporating them into the clinical practice[1].

The ethnic use of the different parts of Mangifera Indica L. (Anacardiaceae) is very wide, it has been used in the treatment of many disorders, according to what reported by the database Napralert of the University of Illinois, 1996. Considering some of these antecedents and some therapeutic properties that are attributed from very remote times, the study of the therapeutic activity of the bark of the tree of Mangifera Indica L (Mango) has

been of particular interest, belonging to a gender broadly distributed in Cuba (273 varieties), as well as in the whole tropical and subtropical region, that has accumulated enough information phytochemistry, non clinical, toxicological, and ethnomedical experience.

VIMANG" is a registered commercial mark that covers several types of formulations related to the increment of the functions of antioxidant mechanisms of the human organism, so much in presumably healthy people with environmental, nutritional risk factors, or population with chronic diseases3. The active ingredient of these formulations consists on a defined mixture of polyphenols, terpenoids, steroids, fatty acids and microelements that imparts its unique properties to these formulations like antioxidant supplement[2].

The chemical analysis, pharmacological and toxicological studies, of the formulations have been directed to the confirmation of their properties like antioxidant product of wide spectrum, given the evidences obtained in ethnomedical studies carried out previously. The results of these studies allow to not only demonstrate their participation in the antioxidant mechanisms of the human organism, but also how these properties can influence important physiologic systems. To corroborate the opposing properties during the pharmacological screening, we decide to study a group of patients affected with tumours. These patients, due to the own course of their illness are subjected to a high oxidative stress, due to an overgrowth production of oxygen free radicals that are directly involved with the bases of cancer, evolution and disease's status. During our study the main objective was directed to achieve an improvement of the quality of these patients' life evaluating the functional effect of the illness and their therapy, with VIMANG" supplementation.

Methods and Patients

A total of 123 patients, without radiotherapy or chemotherapy, was recruited in the study. The diagnosis of patients was made in different institutions of the National System of Health and they received VIMANG" supplement for six months. Each patient was evaluated from the beginning to the end of the study, with analysis intervals every 3 months, during one year. During the same one they received 3 daily dose of the formulation of VIMANG" (30 minutes before meals), that corresponds to a daily dose of 20 mg/kg of corporal weight with relationship to the content of total solids of formulation.

To evaluate the quality of life we used different outlines Depression Index, Integral Evaluation (laboratory tests and clinical symptomalogy) and Karnofsky's Index as performance status3. The depression index was evaluated according to a valorative classification, was carried out an analysis of frequency for each discreet qualitative variable and the results of the surveys were classificated in High, Normal and Low. The integral evaluation was quantified granting a value to the different questions according to the approach of the specialists and the results of laboratory tests. According with this, the patients obtained different points and were classified in: Better, Regular and Worst. In relation to Karnofsky's Index the patient's classification was made in a scale ranging from 0 to 100, according to performance status: 100 Normal, no complaints, no evidence of disease, 90 Able to carry on normal activity: minor symptoms of disease; 80 Normal activity with effort: some symptoms of disease, 70 Cares for self: unable to carry on normal activity or active work, 60 Requires occasional assistance but is able to care for needs, 50 Requires considerable assistance and frequent medical care, 40 Disabled: requires special care and assistance, 30 Severely disabled: hospitalization is indicated, death not imminent, 20 Very sick, hospitalization necessary: active trestment necessary, 10 Moribund, fatal processes progressing rapidly, 0 dead

Results and Discussion

Although they are numerous designs carried out to evaluate quality of life and that many authors conclude that don't exist enti-

rely satisfactory instruments to evaluate the most important determinants in quality of life seems to be the ability to complete the daily personal activities and the emotional state.

At the end of the study the patients achieved a significative improvement in each parameters, High depression diminished in the 84.8 % of patients, integral evaluation was increased in 82.2% of patients and performance status for capacity of a normal life was increased in the 89.7% These results show that the daily administration of VIMANG" lead to a great improvemnet of quality of life in patients with cancer. It may be possible because the VIMANG" has an iron supplementation that it is involved in a reception of oxygen free radicals and it can increase on the part of proteins that require of this element for participate in the mechanism of antioxidant prevention4. Others important elements for this preventive effect are the copper that completes a similar function to the iron, but through the joining with albumin and selenium that acts as an enzymatic cofactor of the Gluthation peroxidases and on the other hand it had been demonstrated that exercise a chemopreventive effect in carcinogenic process5. The presence of microelements conferes to VIMANG" a preventive and reparative action like supplement but it is necessary to clarify that the main antioxidant property of the VIMANG" derivates by its protective effect, due to the major presence of phytochemical components (phenols, flavonoids and tannins), and poly-insaturads fatty acids that when combined with microelements transforms VIMANG" supplement into a product of high potentialities in the current market, with the attractiveness of being 100% natural. Furthermore we can affirm that we are in presence of the formulation that can improve the quality of life of patients with malignant tumours due to a pharmacological properties like a natural and antioxidant supplement.

Conclusions

The demonstration of these properties of VIMANG" on the indexes of quality of life whose results have even been superiors to existent similar products in the clinical practice, has allowed to assure that we are in the presence of a new product of proven effectiveness and security, that can be an attractive product.

References

1. Coe FG, Anderson GI. Screening of medicinal plants used by the Garífuna of Eastern Nicaragua for bioactive compounds. Journal of Ethnopharmacology 53:29-50 (1996).
2. A.J. Nuñez et al Vimang" a new natural and antioxidant supplement. MONOGRAPHY (1999).
3. GH. Guyat et al. Measuring health-related quality of life.Ann Intern Med 118: 622-629 (1993).
4. B. Halliwell. Oxidative stress, nutrition and health. Experimental strategies for optimization of nutritional antioxidant intake in humans. Free Rad. Res 25:57 (1996).
5. M.L. Burr et al. Antioxidants and cancer. J. Human Nutr. Dietet. 7:409 (1994).