These results indicate that an improvement of knowledge is needed on especially intake of protein rich foods and fruit and vegetables. Knowledge regarding meal size and meal timing could also be improved. Various studies have shown that a change in knowledge does not necessarily leads to behaviour change. Practical advice should, however be given regarding intake of protein rich foods, vegetables and fruits, taking into account resource shortages in the study population. During consultation sessions more emphasis should also be placed on practices regarding meal size, timing of meals and use of fat and salt.

P1002

Low-Glycaemic Index Foods Mitigates the Afternoon Glycaemic Fall in Type 2 Diabetic Patients

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Aim: An afternoon glycaemic fall has been observed in diabetic patients (pts), followed by a secondary increased in the evening, due to adrenergic glucose counterregulation. It is often not possible to prevent such dangerous phenomenon. The use of Low Glycaemic Index (LGI) food with a slow carbohydrates absorption can mitigate the phenomenon. Aim of the work is to compare the effects of LGI Diet vs. Usual Diet on afternoon glycaemia and daily metabolic control.

Materials & Methods: 98 "type 2" pts, without neuropathy, were enrolled: 64 with oral hypoglycaemic agents, 34 with diet. Blood glucose was tested at 8 am, 3 pm, 5 pm (2 and 4 hours after lunch) by using home glucose meter Glucocard Memory II (Menarini, Florence Italy). In 57 pts blood glucose at 5 pm was lower than 70 mg/dl. These pts were split into 2 groups, similar for sex, age and diabetes duration (dd): *Group A* 28 subjects (14 Female, 14 Male, age 52±3, dd 11±5); *Group B* 29 subjects (15 F, 14 M, age 51±5, dd 12±1). All were on a standard diet: 55% carbohydrate, 20% protein and 25% fat (9% polyunsatured, 9% satured). Group A was put on a diet focused on LGI food (pasta and legumes and seasonal fruits every day at lunch). Group B followed usual diet (sandwich or meat with vegetables at lunch). After one week, glycaemia was tested at 8 am, 3 pm, 5 pm for three consecutive days.

Results: Significant changes (Student's t test)) were observed at $p<0.01$ for 3 pm glycaemia (142±6 vs. 168±9) and at $p<0.005$ for 5 pm glycaemia (109±3 vs. 72±11). Only a downward trend was observed for the 8 am glycaemia.

Conclusion: The trend of low glycaemic value in the afternoon could be correlated to a pharmacological effect, even if 2 patients, on diet alone, experienced a hypoglycaemic episode. To prevent such phenomenon, it is important to stress the use of LGI foods, even if ADA recommendations of nutrition do not include any specific reference on their use.

P1003

The Planning, Implementation and Evaluation of a Self Study Educational Program for Patients with Type I and Type II Diabetes Mellitus

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A new dietary education program was planned, implemented and evaluated for patients with type I and type II diabetes mellitus admitted to the Universitas Hospital, Bloemfontein, South Africa. The original planning phase consisted of assessing educational needs of the patients, formulating educational objectives of patients and health care personnel, studying hospital policies, identifying available staff and budgeting for the program.

After the initial planning phase, a dietary education program was developed for Afrikaans speaking patients with diabetes mellitus, between the ages of 13 and 65 years of age. The self-study educational program consisted of 17 audiotapes and booklets - one tape and booklet per subject. A randomly selected group of 31 subjects were included in the study: 16 subjects took part in the program, and 15 subjects were part of the control group. Knowledge was evaluated with a structured questionnaire before taking part in the program, immediately after the program and 6 weeks after the program. Diabetic control were established by measuring hemoglobin A_{1c} before the program and 6 weeks after the program, as well as measuring fructosmine levels before the program, immediately after and 6 weeks after taking part in the program.

The most important findings were that the knowledge of both the study and the controlgroups did not significantly differ before commencement of the study ($p>0,05$). The knowledge of the study group was, however, significantly better ($p<0,05$) than the knowledge of the control group immediately after the program and six weeks after the program. The fructosamine levels of the two groups did not differ significantly at the start of the program, immediately after the program and six weeks after the program. The same results were shown with the glycocylated hemoglobin A_{1c} at six weeks after taking part in the program.

These results indicate that the program is effective in increasing the knowledge of patients, but not in changing life style. The program should be adapted to stimulate behavioural changes and patients should be encouraged to implement their knowledge regarding the diabetic diet.

P1004

Learning Good Eating Habits Playing Computer Games at School: A 2000 Children Evaluation

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The main goal of nutritional education at school is the prevention of nutritional deseases, like obesity, diabetes and athérosclerosis, whose prevalence is constantly increasing in the industrialized countries. Computer games for nutritional education, developed by nutritionists and pediatricians, were evaluated in 1997 with 2000 primary school children with the support of the Ministry of Education. Two groups of children were constituted by randomization of 16 schools located in a french South-West town. Both groups (games group and control group) were given nutritional teaching by their teachers. In addition, the children in the "games" group played computer games in pairs, two hours a week for five weeks. This was a case-control study comparing the results of the two groups by dietetic knowledge tests and dietary records after the completion of nutritional education. The mean age of the children was 9 years (7-12 years). BMI values were > 90th percentile for 23.7% of children and > 97th percentile for 11.1%. Dietary knowledge tests results are better in the games group ($p < 0.0001$). The children in the games group had a significantly better balanced diet for a caloric intake of about 1900 kilocalories: more carbohydrate (46.4 ± 0.2% vs 45.7 ± 0.2%, $p < 0.05$), less fat (37.1 ± 0.1% vs 37.6 ± 0.2%, $p < 0.05$), less protein (16.5 ± 0.1% vs 16.7 ± 0.1%, $p < 0.05$), less saccharose (11.5± 0.1% vs 12.2 ± 0.2%, $p < 0.001$), more calcium ($p < 0.001$) and more fiber ($p < 0.01$). The games group had a better snack at 10 a.m., a less copious lunch and a less important picking ($p < 0.0001$). The "games" group children developed a greater interest concerning diet. In conclusion, it is possible for children to learn good eating habits by playing computer games !

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