

1st Middle East Congress: Nutrition in Health & Disease
15 – 17 February 2012, Istanbul , Turkey

Abstracts

Maternal vitamin D deficiency causing rickets in her breastfeeding infant and the need for screening their infants for T1 Diabetes Mellitus

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Aim: In this study we are trying to study epidemiological factors of rickets and further to confirm our original hypothesis that maternal deficiency of vitamin D is a major factor in development of rickets in her breastfeeding infant. **Methods:** All infants with diagnosis of clinical rickets or hypocalcaemia seen in the clinic or admitted to the hospital were included in the study. Blood samples for vitamin D (25OHD) levels from both mother and baby were collected. Radiology of the right wrist was done for each. All cases were divided into active or healed rickets according to radiological evidence of activity or healing. **Results:** Most cases presented in group A presented with convulsions and gastrointestinal and respiratory symptoms whereas the older cases presented with the classical features of rickets. Calcium, phosphorus and 25 hydroxycholecalciferol were significantly low in active rickets compared to healed rickets; whereas alkaline phosphatase and parathormone were significantly high in active rickets compared to healed rickets, on comparing parathormone (MPTH) in mothers of children (CPTH) with active rickets and healed rickets. MPTH was 94.8 and CPTH 199.9, this was considered significant at P value .0104. As for children with healed rickets and their mothers PTH the mean PTH was 199.8 in active rickets and 60.8 in healed rickets, the P value is 0.002 which is very significant. The 25OHD level in mother and child with active rickets and healed rickets is shown in the figure.

Conclusion: The hypothesis that maternal vitamin D deficiency is a major factor in her infant was further confirmed. Vitamin D supplementation during pregnancy and lactation for the mother and breastfeeding infants is recommended to prevent serious complications of vitamin D eg DM type1. The incidence of type I DM in Medina was found to be of the highest in the world .We postulate that improving maternal vitamin D status could decrease the incidence of DM in their infants.

An epidemiologic study of screening of diabetes in above 30 years old persons in the area covered by West Tehran Health Center

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Today, there is no cure for diabetes, but effective treatment exists. Patients should be able to lead an active and healthy life and reduce the risk of developing complications .Good diabetes control means keeping blood sugar levels as close to normal as possible. The data collected from the records of West Tehran Health Center during first 6 months of 2011 about the screening persons above 30 years old (urban regions 2,5,6,9,18,21 and 22) were analyzed. The prevalence of hypertension among the patients surveyed, 12% was found. But among the women surveyed, the rate of 9% and 17% were found in men. In frequency of hypertension in the first visit was 9% of but this frequency decrease to 3.7% in second visit. Frequency of pre-diabetic persons in our study was 17% but this rate among woman was 19% and in men was 15%.

Results; The total number of 7012 patients was screened of which 67% (4729) women and 33% (2,283 persons) are men. Age of the patients surveyed was between 30 and 80 years, mean of age 59 years and mode was 54 years old. The most frequency of Age group belongs to 46 to 60 years old cases with 56%, the frequency of other age groups was 23% for 30 to 45 years and 23% for above 60 years olds. Frequency of pre-diabetes cases was 3.5% (243 people), which is 79% (192) women and 21% (51 cases) are men. 12.8% had a BMI under 25, 44.8% (108) between 25 and 30 and about 42% (102 patients) had a BMI above 30 at admission. Registered BMI information was between 19.2 and 34. Incidence of new diabetic cases ,overweight persons, fattiness, respectively was 2% ,42% ,30% .41% our understudy persons have been visited by nutritionist. There is not a significantly meaning of data between BMI levels of educations. Minimum HBA1c which recorded in our diabetic cases was 4.7 and the maximum value was 9.4. Low level HDL among men and women respectively surveyed (under50 in female and under 35 for men) in healthy people found around 45% on women and 16% in men . this frequency in pre-diabetic cases was 48% for women and 17% for men and in diabetic persons in birth gender group this frequency was 100%, **Recommendations** : In general, the findings of the present study accompanied with the results gained from similar studies can be helpful for monitoring the results of changing life styles in prediabetic patients for facilitating levels. Key words: prediabetic; HBA1c; Tehran .

Fish Consumption and Cardiovascular risk in Egypt

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Background : It has been well established that fish consumption has a protective cardiovascular effect. The protective effect of fish consumption on coronary artery disease was known long ago. Therefore, the aim of this study was to describe the prevalence, clinical and laboratory characteristics of the key cardiovascular risk factors like obesity, hypertension and dyslipidemia, along with diabetes in relation to fish consumption in Egypt. **Subjects and Methods:** In an epidemiological study on the regional differences in incidence of key cardiovascular risk factors among Egyptians and its relationship to dietary habits with a special emphasis on fish consumption . A descriptive retrospective, cross-sectional study in which three thousand and six hundred patients, mean age (49 years \pm 4), (1760 males, 44%) and (1840 females, 46%) were screened for the key cardiovascular risk factors and diabetes. They attended the central Insurance outpatient clinics of cardiology as a nationally representative sample over a period of six years. They were subjected to history taking, anthropometric measures (waist circumference, height and weight). Lipid profile, uric acid , fasting and post prandial blood sugar (FBS and PBS) were assessed. **Results:** It was evident that key cardiovascular risk factors are affected by lifestyle of patients as well as environment and eating habits. Greater Cairo, the capital had the highest risk with prevalence more in females. It was noted that fish consumption was average twice per month .The prevalence of cardiovascular risk factors in Greater Cairo was 37.1%. On the other hand in Suez Canal governorates (Portsaid , Ismailia and Suez) the prevalence was 18.6% with an average fish consumption ranging from two-five times weekly . Females again had more prevalent risk factors. There was significant difference where p 0.009 for Greater Cairo and p 0.006 for Suez Canal area. Interestingly the more fish consumption the less the cardiovascular risk . There was even regional difference in Suez Canal area where there was lowest prevalence in Portsaid who had the most frequent fish consumption .

Conclusions: These finding outline the potential benefits of fish consumption as a cardio-protective preventive tool among Egyptians.

Key words: Fish – cardiovascular risk factors

Bioavailability of oxalate from cereals and legumes assessed by *in vitro* model and its association with phytate

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Introduction: Consumption of whole bran cereals and legumes is increasing because of potential nutritional benefits. Both foods contain relatively high concentrations of oxalate and phytate. Dietary oxalate is one of the documented risk factors for development of a common form of kidney stones due to the low solubility of calcium oxalate. Phytate has long been considered as beneficial for nephrolithiasis, but the presence of phytate in the gastrointestinal tract may cause problems, because it increases the availability of absorbed oxalate by reducing the calcium concentration, and increasing the concentration of soluble oxalate.

The aim of the present study was to assess whether the presence of phytate increases the bioavailability of soluble oxalate in a model gut system. Cereal brans and legumes were selected for analysis as test samples. The soluble oxalate concentration and its bioavailability was first determined by using acid followed by intestinal enzymes with analysis by high performance liquid chromatography (HPLC). Calcium was determined by atomic absorption spectrometry (AAS) and phytate was assessed by post column derivatisation HPLC method. Data were expressed as mean concentrations and molar ratios. The soluble oxalate level increased after treatment simulating the conditions at the main absorption sites i.e. gastric and intestinal conditions as shown in Table-1. Moreover; samples with a high phytate/Ca ratio (wheat, oat and barley bran) had relatively low values of the Ca/oxalate ratio, which will increase the concentration of the more available form of oxalate. On the other hand, samples with relatively low values for the phytate/Ca ratio (red and white beans) have relatively high values for the Ca/oxalate ratio, and lower bioavailability is predicted.

Conclusion, oxalate bioavailability from food is expected to depend strongly on the relative phytate concentration. Excess phytate is likely to reduce mineral bioavailability, and it also found may contribute to increased oxalate bioavailability and risk of kidney stone formation.

A Role for Almonds in Diabetes Prevention and Management

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Introduction: Consumption of tree nuts has been associated with a reduced risk of developing type 2 diabetes mellitus (T2DM) and a better management of this disease, apparently due to their unique nutrient profiles. Nuts are rich in magnesium and vitamin E; a good source of dietary fiber, mono (MUFA)- and polyunsaturated fats (PUFA), L-arginine; and also contain an array of phytochemicals, including polyphenols and phytosterols. Some observational studies have reported nut consumption is inversely associated with the risk of T2DM and weight gain over period of several years.

Results from the PREDIMED clinical trial showed a traditional high-fat Mediterranean diet enriched with almonds, hazelnuts, and walnuts decreased the incidence of T2DM after a median follow-up of 4 y compared to a control diet consisting of advice recommending a low-fat diet. In other randomized clinical trials, whole almonds have been found to reduce the glycemic response of composite meals in a dose-dependent manner and to promote reductions in body weight, body mass index (BMI), and waist circumference compared to a complex carbohydrate-enriched low calorie diet. Almond consumption has also been associated with amelioration of obesity, hyperlipidemia, hypertension, and hyperglycemia. These and related clinical trials of almonds in patients with T2DM or metabolic syndrome have also reported decreases in fasting blood glucose, insulin, and glycosylated hemoglobin (HbA_{1c}) and in biomarkers of inflammation and oxidative stress.

We conducted a 12-wk randomized crossover intervention with almonds in 20 Chinese patients with T2DM and mild hyperlipidemia (11 female; mean age, 58 y; BMI, 26). After a 2-wk run-in period, patients were assigned to either a control National Cholesterol Education Program step II diet (control) or an almond diet (added to the control to replace 20% of total daily calorie intake; ~60 g/d) for 4 wk, with a 2-wk washout period between the two diets. The almond diet significantly increased intake of fiber, magnesium, MUFA, PUFA, and vitamin E. Compared to control, the almond diet significantly increased plasma α -tocopherol status and reduced body fat, total cholesterol, low-density lipoprotein cholesterol (LDL), LDL:high-density lipoprotein ratio, plasma apolipoprotein (apo) B, apoB:apo A-1 ratio, nonesterified fatty acids, fasting glucose and insulin, and homeostasis model assessment of insulin resistance index. These results suggested that incorporation of almonds into a healthy diet has beneficial effects on adiposity, lipid profiles, and glycemic control in patients with T2DM.

Dietary components such as polyphenols present in cocoa

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Introduction: Diet has been demonstrated to play a crucial role not only for the reduction of excessive energy intake but also for the normalization of the tissue hyper-inflammation state, that is characteristic of obesity. Dietary components such as polyphenols present in cocoa (*Theobroma cacao* L.) have important health properties including antioxidant properties, decreased platelet activation and function, modulation of immune function and inflammation. Monocytes are key to the inflammatory status of obesity and offer an important key to investigate the role of dietary components and their metabolites.

The main target of this research is to study the key the molecular mechanisms through which the bioactive components of cocoa may modulate the inflammatory state in obese subjects. At present, there is no specific report on the efficacy of bioavailable flavanols on inflammation in humans, despite promising data in animal models. For this reason an liquid chromatography-mass spectrometry (LC-MS) analysis was performed to evaluate the bioavailability of epicatechin, in particular the glucuronide metabolite, in the plasma of subjects treated with acute and chronic levels of cocoa in the form of chocolate bars.

Based on the preliminary results, the principal bioactive components of cocoa: epicatechin, theobromine and clovamide were tested in time and dose-dependent experiments, firstly using the human monocyte cell line, Mono-Mac 6 (MM6) which resemble the physiologic functions and exhibit several characteristics of mature circulating monocytes, and in secondly using human monocytes isolated from blood. Following treatments, the cells were lysed and analyzed by 2D-electrophoresis, with the respective proteomic profiles compared using PDQuest statistical software.

The best results were obtained after 48 hour of incubation with 10 μ M of each component.

The protein profiles showed significant changes with respect to basal expression and several spots were significantly up-or down-regulated with the three treatments ($P < 0.05$).

The data obtained both will bioavailability experiments and proteomics analyses, represent the preliminary phase of an ongoing study that will contribute to understanding the role of diet on inflammatory mechanisms linked to obesity

Comparison between the effect of probiotic cheese and probiotic yoghurt on blood lipids: a triple blinded randomized trial

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Background: There have been studies investigating the effect of Probiotic yoghurt on blood lipids. However the results were conflicting. On the other there have been few studies about Probiotic cheese considering the fact that cheese is a more valuable alternative as Probiotic carrier due to certain potentials.

Objectives: The goal of this trial was to compare the consumption effect of Probiotic yoghurt and Probiotic cheese on blood lipids in a 4wk period. Design: A triple blinded, parallel randomized controlled trial was conducted in Tehran, Iran. 30 subjects aged 18 – 65, with 4.4 – 5.15 mmol/l total cholesterol were participated in the trial. Subjects were randomly assigned into three 10-person groups. E1 consumed 30 g of Probiotic cheese (daily), E2 consumed 100 g (daily) of Probiotic yoghurt along with a control group. Probiotics strains in products were *Lactobacillus acidophilus* LA5 and *Bifid bacterium lactis* BB12. Anthropometric measurements and blood sampling were conducted at the baseline and end of the fourth wk at SRBIAU Nutrition clinic and Path biology Laboratory center, respectively.

Results: A significant reduction was observed after a 4 wk period in both experimental groups; E1 (-0.42 mmol/L; 95% CI, -0.47, -0.37; P

Effects of Talbina against human colon cancer cell lines

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Introduction: Talbina is a beverage made by cooking 2 table spoons of barley wholegrain flour and a cup of water for 30 minutes then adding a cup of milk and one tablespoon of bee's honey as a sweetener. Even Talbina had been recommended by The Prophet Mohamed (peace be upon him) to be drunk for the sick and grieving people. It has not been studied nor defined by the scientific community.

This study was aimed to measure the nutritional composition values, antioxidant and toxicity effects against human colon cancer cell lines. In MTT assay, Talbina methanolic extract showed toxicity activity against HT-29 colon cancer cell lines with IC50 of 76 μ g/ml after 96 hours of incubation. Using AOAC methods, the proximate nutritional composition values of Talbina and its components were analyzed. Moisture content exceed 85%, total carbohydrate content was 8.17 \pm 0.31g/ 100g of sample, crude fat was 3.91 \pm 0.06g , total dietary fiber was 1.83 \pm 0.1 g, crude protein reached 1.82 \pm 0.01g and total ash was 0.5 \pm 0.01g. However, Talbina was not rich in antioxidant vitamins (vitamin A, C and E) which correlate with the possible antioxidant activity. Generally, overview of results showed significant differences in the content of certain macronutrients compared with its components. HPLC analyses showed Talbina was no vitamin A, very low content of vitamins C (ascorbic acid equivalent = 7.60 \pm 0.26 mg/100g) and E (α tocopherol equivalent = 66 \pm 2.58 μ g/ 100g). According to the β -carotene bleaching method and DPPH free radical scavenging method, antioxidant activity of Talbina was negligible, only the total phenolic content of the Talbina have gave a significant differences comparing with barley in a value of 38.58 \pm 3.86 mg/g Ferulic acid equivalent using Folin- Ciocalteu method. Therefore, the potential of cytotoxicity effect might be contributed by the components in Talbina drink including barley, honey and milk. Generally, Talbina produce a whole nutritionally serving beverage with all basic macronutrients but boiling Talbina could reduce significantly the antioxidant vitamins and activity.

Risk Factors of Cancer Colon in Egypt (Case-Control Study)

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Introduction: Studies and patient's record in the last decades, has reported the increased prevalence rates of cancer colon, with a decrease in its age incidence. This phenomenon was noticed in Egypt and other countries.

This study was aimed to identify the different risk factors that predispose to the disease or lead to its occurrence, through an epidemiological study to plan for its prevention and reduce its prevalence rate. Through this study the difference risk factors were investigated: demographic, pathological, dietary and socio-economic.

The study population was formed of two groups: the first group was cases of cancer colon admitted to cancer institute during one calendar year from April 98 to April 99. The other group "control group" was patients admitted to Kasr El - Eini hospital for emergencies in surgical wards, controls were double the cases and they were matched by age, sex and residence. An interview questionnaire was inquiring about personal data "age, sex, residence and occupation". Complete medical examination of different body systems was done. Anthropometric measurements including weight and height, as well as waist and hip circumferences. BMI and waist / hip ratio were calculated. Food frequency method was used for estimation of dietary pattern of both groups. A modified Park & Park score was used for assessment of the socio-economic status. **The result** of the study showed that males represent more than two thirds of the case group. The mean age of the group was; 41.9 years for males and 48.5 years for females. The study also revealed the high percentages among cases , of high consumers of animal fats "42.2%" and processed meat e.g. "Hamburgers, luncheon" "84.5%" among cases. And the decreased percentage of the disease occurrence among high consumers of milk, vegetables and fruits as "84.4%, 72.4% & 72.8%" respectively of the control group ,who are high consumers of these types of food. In conclusion, prevention programs for cancer colon should be planned for screening, early detection of the age group "40-50" years, while "21.4%" belong to the age group "50-60". Residences of urban areas represent "55.7%" of the group, while that of rural areas represent 44.3% Health education has an important role, in the prevention of the disease, through special centers e.g. primary health units and mass media. Further studies should be done to identify the risk factors of the disease in our community as a step towards prevention.

Effect of restricted diet and complex carbohydrates on Lipoprotein(a) level and obesity indices in NAFLD

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Introduction: Lipid disorders and obesity are risk factors for Nonalcoholic fatty liver disease (NAFLD). As diet and its composition play an important role in obesity management, it seems to influence metabolic abnormalities biomarkers such as Lipoprotein(a) (Lp(a)).

This study was aimed to investigate the effect of weight loss diet with high proportion of complex carbohydrate on obesity indices and Lp(a) level in patients with NAFLD. Materials and Methods: Forty-eight NAFLD patients who were overweight or obese, 20-55 years old and free of diseases such as hypertension, cardiovascular, pulmonary, renal and liver diseases were enrolled in this study. A diet

with reduced energy intake (-500 Kcal based on each individual's requirements) with emphasis on complex carbohydrates in a ratio of C: F: P → 60: 20: 20 was prescribed for 6 weeks. Blood pressure, weight, height, waist and hip circumferences were measured in fasting conditions and the body mass index (BMI) and waist to hip ratio (WHR) was calculated. Fasting serum glucose, insulin, lipid profile, Lp(a) and liver enzymes were measured and insulin resistance was estimated using HOMA score. Results: A significant reduction in weight (0.25 Kg/week, 1.48% in total), waist circumference (0.26 cm/week, 1.6% in total) and WHR 0.75% was also found. However, lipid profile and Lp(a) did not change significantly after dietary intervention. There was an improvement in liver function and decreased levels of liver enzymes and liver echogenicity in 7 patients (32%), (5 cases were full recovered, p=0.016). **Conclusion:** Energy restricted diet based on complex carbohydrate through reducing weight and central obesity may improve liver function. Keywords: Non-alcoholic fatty liver, Lipoprotein(a), Obesity, Diet composition

Influence of Dietary Habits on Body Weight in Qatari School Children

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Background: Efforts to address the issue of obesity require an understanding of how it is defined, and how health care professionals diagnose someone as obese or overweight. Obesity is defined as a complex, multi factorial chronic disease which involves the interaction of both genotype and environment. Integrating factors of dietary habits, social, cultural, physiological, genetic and metabolic are involved. Excessive energy intake through regular consumption of foods high in energy is also a key determinant for the development of overweight and obesity. The state of Qatar has undergone a rapid nutrition transition, and this is suggested to be secondary to the rapid change noted in fertility to urbanization. This transition has led to a considerable imbalance in food consumption with low nutrient density characterizing the diet and over-consumption evident among more than a third of households. **Objectives:** 1. Find out the prevalence of overweight and obesity among Qatari school children in the age group 6 – 12 years. 2. Assess the nutritional status and its relation with body weight and food habits of Qatari school children 3. Identify the most common food habits and its relation with health status and body weight of Qatari school children

Methods: Study was conducted on a sample from Qatari school children. A representative sample (1500 children) were selected between the ages of 6-12 from 23 schools using multistage cluster random sample, while 200 cases from each age group were targeted as primary sampling unit. Information on eating habits and knowledge concerning nutrition were obtained by utilizing a standardized self-administered questionnaire **Results:** The study showed in general that more than one third of the sample (38.6%) has bad food habits and no significant differences were noticed between boys and girls. On the other hand, boys have poorer food habits than girls (40.9% vs. 37.5% respectively). Consequently, girls have healthier food habits than boys (25.3% vs. 22.3% respectively). About half of the sample subjects were skipping one or more meals during the day and as expected the breakfast meal was the most skipped meal (30.5%, 32.2% of boys and girls respectively). On the other hand, generally the studied children mean intake from fruits, vegetables and starchy foods were less than the international recommended number of servings per day for children. The results showed that no significant differences were found between the BMI classes and the food habits for the studied boys and girls. However, the majority of the boys and girls with bad food habits have unhealthy body weight (underweight, overweight, and obese) compared with those who have healthy body weight (123 vs. 77 boys and 203 vs. 168 girls respectively).

Conclusion: Overweight considered a major health problem in school children. Unhealthy nutritional habits flourished among all levels of schoolchildren. There is a need for special educational interventions that target dietary and promote healthy eating life styles among children. There is a clear difference between the new 2011 study statistics and those of the 2007 results. To some degree this is alarming, as less than 5 years have passed between studies and though availability of food, rather than likelihood of food shortage can be seen as a positive step it cannot be judged as wholly positive if the available food sources continue to trend toward fast food and unhealthy fatty, high cholesterol, high fat, high calorie alternatives.

Immunological and oxidative status and lipid profile of blood serum of rats fed with addition of rapeseed, raspberry seed and strawberry seed oils

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Background: Poland Oils produced from raspberry, strawberry and rapeseeds contain apart from fatty acids also number of substances with anti-oxidative, anti-inflammatory, anti-arteriosclerotic, anti-carcinogenic and immunosuppressant properties such as tocopherols, carotenoids, flavonoids, phytosterols, phenol acids etc. The aim of this study was to evaluate the changes in lipid profile, anti-oxidative enzymes activity and indicators of immunological answer in blood and tissues of rats obtaining the diet with addition of oils produced from rapeseed, raspberry seed and strawberry seed oils. Experimental animals were male rats of Wistar breed weighting initially about 300 g in the age of four months. The animals were randomly divided into four feeding groups, 7 rats in each group. The animals were fed with restrictive diet (15 g per day per rat) enriched with rape seed, raspberry seed and strawberry seed oils in amount of 5% of the mixture. The oils used in the study were produced by Mega-Sort Company Ltd. (Poland). At the beginning of the experiment and after 6 weeks of feeding test samples of blood were collected from each rat and the activity of superoxide dismutase (SOD) and cellular glutathione peroxidase (cGPX) was evaluated. Lipid indicators TG, total cholesterol, HDL and LDL were also evaluated in the rats' blood. After that all rats were killed by decapitation and the internal organs such as spleen, liver, thymus and adrenal glands were collected for the study. The relative weight of all internal organs was estimated as the percent of body weight. Immunological studies were carried out on macrophages isolated from peritoneal cavity. The coloration with the use of crystal violet (CV) was performed together with evaluation of nitric oxide (NO), activity of arginase and lactate dehydrogenase (LDH). The results of blood tests were statistically evaluated with one-factor variance ANOVA, for evaluation of difference significance the Tukey's test was applied with the use of Statgraphic plus 4.0 programs. The oils added to rats' diet were characterised by diverse content of tocopherols. The oil from raspberry seeds was found as the richest source of vitamin E, and then rapeseed oil and strawberry seed oil (respectively 301.9; 76.3 and 58.4 mg/100 g). The phytosterols content in studied oils was between 4.62 mg/g in strawberry seed oil to 7.25 mg/g in rape seed oil. The oils served in rats' diet during 6 weeks did not influenced significantly on the level of TG, total cholesterol or HDL and LDL fractions. In the group obtaining rape seed oil and also in control group (without the oil additions) lower level of LDL fraction was observed comparing to other groups but any statistical differences were not found. The significant decrease of anti-oxidative enzymes SOD and cGPX in red blood cells of rats obtaining the raspberry oil in their diet was observed, the highest indicators were observed in the group obtaining rape seed oil and in control group ($P \leq 0.01$). Any significant differences between studied groups of rats in macrophages activity were not found. The macrophages activity was similar in all studied groups so the oil addition has not influenced the general immunological condition of studied rats. The oils obtained from strawberry, raspberry and canola oil are a rich source of essential unsaturated fatty acids (PUFA), tocopherols and phytosterols, which could find wide application in the cosmetic, pharmaceutical and food industries. The oils from strawberry, raspberry, and canola seeds can be regarded as special oils (bio-oils), which, due to their possible nutraceutical effects could find broader use not only in the cosmetic but also in the food industry. They could find special application in the design and production of foods with

specific health-promoting effects, rich in various bioactive components helpful in preventing metabolic diseases of modern civilization.

Chronic Consumption of Farmed Salmon Containing Background Levels of Persistent Organic Pollutants Leads to Insulin Resistance and Obesity in Mice Fed Western Diet

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Background:

The intake of fish protein and omega-3 fatty acids was found to prevent against insulin resistance and cardiovascular disease. On the other hand, fatty fish can also contain environmental pollutants like persistent organic pollutants (POPs), which have been linked to diabetes.

Aim:

The aim of this study was to investigate whether the presence of POPs in a common western diet containing farmed salmon could induce metabolic disorders in mice.

Methodology:

Male C57BL/6J mice were fed, for 6 weeks, a standard control diet (C), a common western diet (WD) or WD with farmed Atlantic salmon fillet (WD/S). Compared to WD, WD/S contained significantly higher levels of POPs originating from the salmon fillet. Glucose homeostasis, insulin sensitivity, body weight gain, and adipose tissue inflammation were assessed.

Results:

In comparison with animals fed C and WD, consumption of WD/S significantly increased body weight gain and visceral obesity although energy intake was similar between groups. Histology and immune histo-chemistry investigations revealed increased adipocyte hypertrophy and macro-phage infiltration in adipose tissue of mice fed WD/S. Compared with other groups, mice fed WD/S were glucose intolerant and exhibited impaired insulin action during glucose and insulin tolerance tests, respectively. Furthermore, the ability of insulin to stimulate glucose uptake in skeletal muscle was impaired in mice fed WD/S, and was associated with elevation of muscle triglycerides. These animals were also characterized by non-alcoholic fatty liver.

Conclusions:

These findings indicate that chronic intake of farmed salmon fillet containing POPs can contribute to several metabolic disorders linked to type 2 diabetes and obesity in mice.

Fish oils improve health status and decreased IGE concentration of children with asthma

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Introduction: Regular consumption of fish is associated with a reduced risk of developing asthma in childhood. **This study aimed to** find out the effect of fish oil and cod liver oil supplementation on children with asthma. **Subjects and methods:** Forty children with acute attacks of bronchial asthma were chosen from outpatient clinic of Shebin El Kom University Hospital, Minufiya Governorate, Egypt. They were divided into 4 equal groups; control group (CG) did not receive any supplementation; fish

oil group (FOG) received 1g/day of fish oil in the form of gelatin capsules; cod liver oil group (CLG) received 5 ml of cod liver oil daily; and mixture group (MG) received 0.5 g of fish oil and 2.5ml of cod liver oil daily. All children, were received the standard medical treatments along the study, the study continued for 16 consecutive weeks. The asthma outcomes were recorded according to asthma clinical severity score. Hemoglobin, RBCs, PCV, and IgE were determined at baseline and after 16 weeks. Also body weights and heights of children were measured, and chest X-ray was performed. Results showed that the severity of asthma decreased among FOG and CLG from 20% at baseline to 10% after supplementation. The supplementation resulted in significant decrement of IgE by 16%, 13.6%, and 15.3% among FOG (P

General Knowledge on Nutrition among Dental Students

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Introduction; Nutrition education is an important topic for dental professionals. Dental caries and periodontal disease are the most common diseases affecting oral cavity, and they are aggravated by an imbalanced diet and a lack of nutritional knowledge. Dentists have a unique opportunity to increase the nutrition knowledge of their patients. Several studies showed that physicians fear giving their patients nutritional information and this reflected a lack of confidence stemming from lack of sound knowledge during the educational process. In Saudi Arabia, a study carried out in Riyadh found that approximately 75% of physicians described their knowledge on nutrition as “poor”. While in Jeddah, physicians who described their nutritional knowledge as poor were 81%. A skillful technician may reconstruct the teeth very successfully in terms of esthetics and function. But only an oral doctor can truly improve a patient’s dental health. To this end, the nutritional knowledge is changing every day, so dentist must be aware about reliable sources for continuous education and information for their patients’ care. **Aim:** This study aims to determine the level of nutrition knowledge among dental students in King Abdul-Aziz University, Jeddah, Saudi Arabia. **Materials and Methods :** This descriptive, cross-sectional study was carried out on 595 dental undergraduate students and interns (214 males and 381 females). Anonymous self-administered questionnaire was distributed on the participating students. The questionnaire assessed general knowledge about nutrition, diet and health conditions, dietary recommendations and diet concepts. **Results:** When asked if they believed that they had enough knowledge on nutrition, among the pre-clinical students, 22.4% said yes, 28.3% said no and 49.3% were not sure. The senior students who had already been given the nutrition course, 44.4% said yes, 9.2% said no and 46.5% were still not sure. When asked if they believed they had enough knowledge to pass some information to their patients, among the pre-clinical students, 75.5% said yes, 6% said no and 16.6% were not sure. The senior students answered yes 90.1% yes, 2.8% no and 7% not sure. Asked about the specific oral conditions that are associated with a high BMI, only 18.1% of junior patients recognized the oral conditions, and only 26.7% of senior students. **Conclusions:** Our study clearly affirmed the previous findings in the literature. The number of dental students that believe they possess a good sound base in nutrition is still abysmally low. However, a great number of them believe that such knowledge is essential for their role as health care providers. This clearly points out the great need to update and reform the curriculum. In many medical professions there is still a trend in teaching without the proper integration of the various professions. However, nowadays there is a great deal of evidence that integrating all parameters of health information lead to a more holistic and therefore more efficient way of treating our patients.

Evaluation of Nutrition Education Program for Prevention of Type II diabetes among Egyptian Children & Adolescents

Introduction: The increased number of children and adolescents diagnosed with Type 2 Diabetes Mellitus (T2DM) presents new challenges to pediatricians and dietitians. The increased prevalence of childhood obesity has led to rising rates of (T2DM) in youth. Reverting obesity through lifestyle modification, that involves nutrition education, behavior modification and exercise, is an important step to prevent the progression to diabetes.

Objectives: To raise the awareness of the students (diabetics or at risk for the T2DM) to the importance of protective rôle of healthy nutrition and lifestyle for prévention of T2DM and its' squeal and to evaluate their nutrition knowledge, anthropometric and laboratory results pre and post to Nutrition Education Program (NEP). **Design:** It is conducted in Giza governorate as a part of Phase II of the national survey Nutrition and Prevention of Chronic Non-communicable Diseases among Adolescents" that was carried out by teams of National Nutrition Institute. Adolescents at risk; selected from phase I of the survey, were the targets of this study, they were 324 students (118 males and 206 females) representative of twenty eight (preparatory and secondary) schools in urban (143 adolescents) and rural (181 adolescents) areas. They were subjected to nutrition education process that was carried out by survey teams (physicians, dietitians, nurses and social workers) who deliver nutrition education through a series of lessons and activities to the students. The process was continued for three months and conducted in three stages: **Pre-program evaluation, N E P implementation** and **Post-program evaluation**. The studied adolescents were subjected to clinical, anthropometric and laboratory assessments in the pre and post program period. The program consists of two modules that covered topics related to basics of nutrition and diabetes mellitus.

Results: This study revealed an impressive gain in knowledge among participants following the NEP implementation. The program has not successfully changed obesity and overweight percentages, however. A dramatic improvement in fasting blood glucose (FBG) level was elicited after the NEP as 16 out of 21 (76.0%) of the diabetics and 61 out of 104 (58.7%) of the pre-diabetics had normal FBG in the post evaluation phase. Lipid profile didn't change significantly but 17.0% of participants had an increase in their high density lipoproteins (HDL-c) level in the post evaluation phase to be re-categorized in the acceptable range.

Conclusion: The results of this study suggest that patients who are at risk for T2DM should be screened early and treated aggressively to prevent the onset of the T2DM whenever possible. The short-term changes observed in the present study are markedly encouraging and indicate great potential for progressive improvement. Continuation and expansion of such a program may prove to be beneficial in initiating long-term changes.

Food variety score assessment in patients with cardiovascular disease

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Introduction and objective: In comparison to substance or certain nutrients studies, diet quality indices and dietary behavior are more considered for chronic diseases. The purpose of this study is to assess the index of variety of food items together with some specific factors associated with the lifestyle of patients with coronary heart diseases.

Material and method: A descriptive–analytic study was done on patients with heart disease heart disease patients in Imam Reza hospital, Tabrize, Iran. Two following questionnaire were used in this study to attain the data:

- (a) Personal information questionnaire and

(b) Questionnaire of food variety items including 49 food items divided into 14 different groups. The final scores of the food variety index were analyzed and results were classified according to quartile into three groups of weak (poor), moderate and good. Results: A total number of 160 patients (including 86 males and 74 females) at age range of 39–64 were studied. The relationship between food variety score and age group ($p=0.03$), BMI ($p=0.001$), education ($p=0.001$) and smoking status ($p=0.001$) were found to be significant, whereas no considerable relationship was observed between the food variety score and physical activity ($p=0.64$), job($p=0.21$) and gender ($p=0.74$).

Conclusion: It is concluded that one of the main reasons of low food variety score in the studied patients is inappropriate nutritional behavior and shallow information about diet. This shows the necessity of careful planning for providing essential education to elevate the nutritional knowledge among people and consequently to change their nutritional behavior.

Key words: cardiovascular disease, food variety score, diet

Effect of olive oil on atherosclerosis

A systematic review Shayan Mohammad Moradi, Aida Javidan, Hamidreza Naji Isfahani¹ 1. College of Food Science and Technology, Science and Research Branch, Islamic Azad University, Tehran, Iran **
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Background and objective: Atherosclerosis is one of the major causes of death worldwide. On the other hand the present compounds in olive oil can have positive effects on prevention and modulation of atherosclerosis. The aim of this study was to conduct a systematic review on the trials related to the association of olive oil consumption and atherosclerosis.

Methods: In this study, Google scholar, Pubmed, Science direct and Medline search engines were used to collect data. In this study “inflammatory disease”, “atherosclerosis” and “olive oil” were used as the keywords and from 142 articles found, 39 one were compatible with the study protocol and were used to write this paper.

Results: Findings showed that due to high amount of mono saturated fatty acids in olive oil, this product can prevent atherosclerosis through different mechanisms. Other studies also indicated that in addition to prevention, olive oil can play an important role in the modulation of this disease.

Conclusion: Generally it can be said that olive oil is a good candidate for replacing other fats with it and its consumption can prevent atherosclerosis and risk of cardiovascular disorders.

Nutritional Management of Inborn Errors of Metabolism @ KFSHRC Saudi Arabia

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Background and objective: Inborn errors of metabolism (IEM) are rare disorders, but may not be that uncommon in our patient population. The records of 875 patients aged Between 1 day to 22 years old, who are followed in our metabolic nutrition clinic at KFSHRC. From YEAR 1980 to 31OCT 2010 were reviewed and categorized according to accumulated or deficient metabolites into small-molecule disorders:- Amino Acid metabolism 66%, Carbohydrate metabolism 16%, Lipid metabolism 5% and **Urea Cycle disorder** 10%, Others 3% The occurrence of inborn errors of metabolism in the Middle East is greater than any western civilization. Medical nutrition therapy is the most important element in the treatment and management of these diseases. Such therapy is essential in maintaining a positive metabolic balance and improving the quality of life of affected individuals. Medical foods are defined as a line of foods designed to meet the special nutrient needs of infant, children and adults with inherited disorder. The objective of nutritional support is to provide adequate nutrients for normal growth and development, and it depends on the accuracy of the diet prescribed. In our era of cost containment, these expensive medical foods contribute to high cost in the health care system. Therefore, educating the public about the benefits of genetic screening programs may help in decreasing the incidence of these diseases, and thus reducing the cost. Low protein food is considered as part of these patients diet when they start weaning.

These products are not available in the kingdom of Saudi Arabia. Patients are having a lot of difficulties to follow their metabolic diet, also we as metabolic Dietitians are having a lot of challenges and difficulties to keep their laboratories under control. We have big number of patient with inborn error of metabolism and i hope we can meet middle east dietitian and share our experience with each other.

Comparison Effect of Green and Sour Tea on Blood Glucose and Lipid Profile in Patients with Type 2 Diabetes Mellitus (Clinical Trial)

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Background and objective: Diabetes mellitus (DM) is a common endocrine disease that its incidence is increasing day by day due to machine life development in most parts of the world. Dyslipidemia is one of the common disorders in this malady that caused development and progression of short and long term complications. One of the usual approaches for controlling and preventing of the complications of DM is to use herbal product such as green and sour tea. The aim of this study was comparison effect of these teas on glucose and lipid profile in type 2 DM with overweight and obesity.

Material and Methods: In this randomized controlled clinical trial was conducted on 100 type 2 diabetic patients in Yazd Diabetes Research Center in 2011. The diabetic patients were randomly divided into green (GG) and sour tea (SG) group. Two groups used tea for 4 weeks, three times a day, 150 ml two hours after each main meal. Fasting blood glucose (FBG), lipids and lipoproteins were measured at the beginning and the end of the intervention.

Results: Ninety four patients completed the study. The mean of FBG, lipids and demographic variables did not significantly differ between two groups at the beginning and the end of intervention. Only the mean for HDL-C was significantly increased at the end of intervention in both groups, as in SG the mean of its from 37.1 ± 8.4 at the beginning was reached to 41.8 ± 8.8 mg/dl at the end of intervention (16.6% increase) and in GG the related figures were 38.7 ± 9.1 and 43 ± 13 mg/dl (14% increase) respectively.

Conclusion: This study revealed that both sour tea and green tea consumption caused significantly increased HDL-C in both groups. Regarding to this effect and another useful reported effects by similar studies, consumption of those can be recommended for dyslipidemic patients especially in patients with diabetes.

Keywords: Mellitus Diabetes, Sour tea, Green tea, Lipid profile abstract category: oral or poster

Nutritional content of regular diets in a pediatric hospital in Tehran

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Introduction and objectives: malnutrition is prevalent among hospitalized children and insufficient dietary intake is the main responsible cause. We aimed to assess the nutritional adequacy of regular hospital menu served in a pediatric hospital in Tehran and to verify whether the menu can meet the nutritional needs of pediatric patients according to dietary reference intake (DRI) Materials & Methods: In this cross sectional study, all foods served as regular diets in Mofid Children's Hospital were weighted and analyzed over seven consecutive days in summer 2011 using an electronics scale and Nutritionist IV software package. The mean energy, macronutrient, vitamin and mineral content

of the foods were then compared to dietary reference intake guidelines for children of different ages. Results: It was shown that the average nutrient content of foods analyzed served in hospital over a week were able to meet the nutrient needs of the hospitalized children according to dietary reference intake, with exception for vitamin C and fiber. The average content of vitamin C covered 62, 37 and 43 percent of RDA for 9-13 aged children, boys at 14-18 years and girls at 14-18 years respectively. The average content of fiber was also lower than the suggested amounts by DRI and its content met 76,62 and 90 percent of needs of boys aged 9-13, girls aged 14-18, and girls aged of 9-18 AIs. Conclusion: Our findings show that the nutrient content of regular diets offered in our hospital is deficient in vitamin C and fiber which underline the necessity of adding more sources of these nutrients to improve the hospital meal service and therefore nutritional intakes of inpatient children. Key words: hospital food; hospital catering; food intake, nutritional needs; children.

Pediatric Nutrition, Screening, Assessment, and Plan

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Introduction and objectives: KFSH&RC is one of the leading institutions of excellence and innovation in healthcare, not only in the kingdom, but also in the Middle East. KFSH&RC mission is to provide the highest level of specialized healthcare in an integrated educational and research setting. The audience will be able to experience the healthcare process geared towards pediatric clinical dietetics practiced to promote normal growth and development through the Identification of nutrition problems. Understanding the different cultures, educational level and nutritional habits in different populations is one of the biggest challenges that dietitians face in the Middle East. The ability to gather the accurate information from the family is another challenge. The nutrition care plan consists of three (3) steps: 1. Nutrition Screening 2. Nutrition Assessment 3. Nutrition Plan The overall objectives of the presentation include but are not limited to: - Identifying the nutrition care plan for pediatrics. - Providing the criteria for high nutritional risk. - Explaining the different growth charts. - Explaining the different diets and formulas.

Effect of dietary grape seed extract on plaque development and coagulant state ensuing atherosclerosis in ApoE-deficient mice

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Sonia C. Garcia Caraballo⁴, Erik A.L Biessen³, Guido R.M.M. Haenen⁵, Judith M.E.M. Cosemans¹, Johan W.M Heemsker¹

Depts. of 1Biochemistry, 3Pathology, 4Anatomy & Embryology and 5Pharmacology, Cardiovascular Research Institute Maastricht (CARIM), Maastricht University, The Netherlands, 2Dept. of Nutrition and Dietetics, Faculty of Health Sciences, Hacettepe University, Turkey Abstract Nowadays,

Introduction and objectives: cardiovascular diseases are major cause of death. Antioxidant polyphenol intake is considered to decline the risk of cardiovascular disease. To provide an explanation for this cardioprotective effect, we performed an intervention study with proatherogenic ApoE^{-/-} mice fed with high-fat diets supplemented with grape seed extract. Plasma lipid profile, liver triglyceride accumulation, atherosclerotic plaque development, plasma thrombin generation, plasma total antioxidant capacity, and platelet functions were measured. Feeding grape seed extract for eight weeks did not affect plasma levels of triglycerides, cholesterol and lipid accumulation in the liver, while plasma antioxidant capacity was moderately increased. Markedly, feeding of grape seed extract caused a reduction in atherosclerotic plaque formation in the aortic arch. However it was not associated with staining of plaques for CD36, a scavenger receptor expressed by macrophages.

Platelet activation was not changed but thrombus formation under arterial flow rate was affected by grape seed extract supplementation. Taken together, these results indicate that, in Apoe^{-/-} mice on high-fat diet, intake of grape seed extract beneficially influences thrombin potential, plasma antioxidant capacity, and atherosclerotic plaque development, with no more than limited effect on platelet function.

Obesity and its association with socio-demographic and health-related characteristics among Malaysian older adults

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Introduction and objectives: The purpose of this paper is to examine the relationship of obesity and indicators of obesity with selected socio-demographic and health-related characteristics among older adults in Peninsular Malaysia. A total of 1013 non-institutionalized elderly (504 men and 509 women) from selected states in Peninsular Malaysia participated in this study. Weight, height, circumferences of waist, hip, calf, and mid-upper arm (MUAC) were measured using appropriate equipments and standard procedures. Indicators of obesity were computed, including body mass index (BMI), waist-hip ratio (WHR). The age of the respondents ranged from 60 to 95 years (Mean= 68.8 ± 6.3 years). There were significant differences in mean values for weight, height, arm span, BMI, calf, waist and hip circumferences, WHR, percent body fat and fat free mass between the men and women. Most of the anthropometric measurements were correlated significantly and negatively with age except for WHR and arm span. Based on the BMI classification, 7.4% of the respondents were considered to have CED I-III (BMI < 18.49 kg/m²), while 12.5% were obese (BMI>30 kg/m²). Android obesity and waist at increased risk were prevalent among 35.1% and 52.7% of the respondents, respectively. About 47.7% of elderly had unhealthy level of body fat (Male>25%; Female>30%). There were differences in the prevalence of obesity according to age categories, ethnic groups, gender, strata and health-related characteristics. In conclusion, obesity was prevalent among older adults, therefore appropriate programs and intervention strategies should be formulated to address the problems and to reduce risk of age-related chronic diseases among the aging population.

Assessment of food intake (FI) and body cell mass BCM , by bioelectrical impedance (BIA), in carcinoma patients.

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Introduction and objectives Weight loss and nutritional problems are often associated with cancer. Extreme weight loss is commonly seen in advance cancers with considerable difficulty manage. Deficit of energy, protein and/or other nutrients, in malnourished patients, may cause measurable adverse effects on tissue/body composition (BC), function and clinical outcome. In this contest, BC as well as nutritional status assessment and support should be considered a valuable measure within the overall oncology strategy. Estimation of fat, lean and body fluids, that is significant in the management of nutrition therapies, has become an easy procedure in the clinical setting together with determination of the phase angle (PA) by BIA. PA has been found to be a prognostic indicator in several chronic conditions. Furthermore a number of studies suggest a role of dietary factors as risk predictors of cancer. However, it is difficult to interpret the observed associations of cancer risk with any particular dietary item due to high correlation among different dietary items. The aim of this study was to examine the association between FI and (BCM) measure by BIA and derived PA in advanced lung, colorectal, and breast carcinomas.

Subjects & Methods: We assessed forty advances cancer patients, mean age was 59.0 ± 18 years (11 lung, 14 colorectal and 15 breast). Weight, height were measured and Body Mass Index (BMI) was

calculated. A standardized questionnaire (which included a food frequency questionnaire module) was administered by trained interviewers. Resistance, reactance and phase angle were assessed by BIA and BC, fat-free mass (FFM), fat mass (FM), BCM were calculated. All patients underwent a laboratory measurements evaluation including serum albumin, glycaemia and cholesterol. Results: BMI was $25,5 \pm 2.3$ kg/m². All patients had FFM below the normal range and 4 patients had a low FM despite a normal or relatively high BMI. The FFM and FM appear to be better indicators of the nutritional status than the BMI. In addition, half of the patients showed a percentage-value of BCM below normal value and PA was 4.4 ± 1.0 (normal values 5 – 5.6 degrees). Interestingly, while fruit and vegetable intake were overall inversely associated with all type of carcinomas meat consumption was inversely associated with lung cancer.

Conclusions: this present study confirms the growing evidence of the clinical application of BIA derived PA. Tumour stage remains the single most important prognostic factor, however, BIA-derived PA and BC are potential indicator of nutritional status lung, colorectal and breast cancer patients

How many meals a day one should consume?

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Introduction: In order to get healthy, adequate and balanced nutrition we need to consume certain amount and kind of food. This sounds simple, but it seems not simple to answer the question “how many meals a day one should eat? None of the antiquity nations were practicing three meals a day. They were mostly consuming their food in one big meal a day, then it was formed as two meals a day which were one late morning meal and one early evening meal.

In Greek Civilization these meals were named as ariston and deipnon respectively. During the 20th century all nutritional suggestions were built on three meals a day and the surveys conducted between 1940 and 1970 stated the importance of breakfast on work performance and school achievements.

Additionally, the importance of meal frequency is very well shown for diabetic people. However, recently many experts started to discuss whether eating three meals a day is a must or on the contrary is the cause of many digestive system problems. As it is known the muslim world fasts starting from early morning till night, which is almost 13-16 hours a day, for 30 days during Ramadan. There aren't much survey carried out during Ramadan to show the effect of such long fasting in long term on health but it worths to consider. In the twentieth century people started to feed themselves not to satisfy their physiological needs but mostly to fulfill their social and psychological needs. One can think that increasing trend of obesity may be the result of this uncontrolled eating. In this presentation these issues will be discussed.

The Iodine Deficiency Disorders Scientific Secretariat of Egypt (IDDSSE) as a module in salt iodization program.

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Introduction : In Egypt Iodine deficiency disorders (IDD) represents a public health problem of multi-sectorial partners, it was concluded by the WHO/UNICEF to choose the salt as the best to be fortified

by the iodine to solve the problem of IDD, as it is the most daily and widely used food article. In 2003 the house hold consumption of iodized salt was (56%) and increased until it reached in 2005 to (79%) (Izz -el-Din 2005), and became accessible to the international ratio to declare Egypt free from IDD (90 %). In March 2009, a workshop in Cairo under the auspices of the Ministry of Health(MOH), UNICEF and the International council for the control of iodine deficiency disorders (ICCIDD), to discuss the challenges of access to announce Egypt free of IDD.

The recommendations of the workshop was the establishment of a scientific secretariat for coordination between all partners in this area sponsored by UNICEF and hosted by the National Institute of Nutrition (Cairo) ,and with the membership of different partners :UNICEF / NNI / MOH / / SAG / ICCIDD / WFP / WHO / HIPH / GAIN . The activity of the secretariat during the last two years aims to accomplish the activities of all the partners and to achieve their goal: A 45 meetings were held between all the partners to overcome the obstacles and problems posed by the partners. The Association of salt producers (SAG)and the Ministry of Health had 12 meetings together as they were the more interested partners in the field of salt iodization . Implementation of the WHO/UNICEF/ICCIDD recommendations. Distribution of all publications, research, scientific courses, and studies (international and national). Respond to inquiries from partners and what they need to provide references and information, as well as researchers in universities and research centers. Formation of a database and library for iodine deficiency disorders. Choose a "logo" for the iodized salt, and for the secretariat. Choice of the slogan "Together we can achieve," an emblem of the Secretariat and all partners. Equipment and attend scientific committees for deciding and discussing different scientific topics. This secretariat is unique in the region, and the third all over the world, It can be a module for a coordinator core between different stake holders in multi sectorial health problem in general and especially for salt iodization programs

Meat food poisoning in the region of Tanger-Tetouan in Morocco

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Introduction: Food poisoning is a public health problem. Meat is a food appreciated for its taste and nutritional qualities. However, consumption of this food can cause severe poisoning. The objective of this study is to determine the epidemiological and clinical characteristics of poisoning by this product in the Tanger-Tetouan region of Morocco.

Methods: We conducted a retrospective analysis of all poisoning cases by meat collected by the Poison Control Center and Pharmacovigilance of Morocco in the Tanger-Tetouan region betwin 1983 and 2007.

Results: During the period of study, 172 cases of poisoning were recorded. The results showed that the majority of poisoning took place at home and was pronounced in urban areas. The seasonal distribution of reported cases is represented mainly by the summer and especially in August (34% of cases). According to the data, the average age was 24 years. The sex-ratio (M / F) was 0.9. The symptoms of this poisoning were gastrointestinal disorders manifested by vomiting, abdominal pain, nausea and diarrhea associated with some nervous system disorders like headaches and hypoesthesia. The patients which outcomes were known were in favor (96%). However, four patients died, the lethality rate was 2.3%. Patients from urban areas have a relative risk of death of 1.16 (95% CI 1.05-1.28).

Conclusion:

The real incidence of this poisoning is unknown because of undiagnosed and unreported cases.

Keywords: Poisoning; Meat; Tanger-Tetouan; Morocco

Obesity in Qatari school children

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Background: Schoolchildren among the most vulnerable groups that pass critical periods of physical, mental, and developmental growth are in need of special nutrition and health care. Little is known about the nutritional status of schoolchildren in Qatar. Scanty studies showed that obesity at the age from 6-18 was 4.7% and 5.6 in boys and girls respectively, another study on age 7 showed that obesity accounts for 1.6% and 5.4% in girls and boys respectively. While at the age of 9-12 obesity was 7%.

Objectives

1. To determine the anthropometrical measurements (height, weight, mid upper arm circumference, skin fold thickness) of Qatari school children.
2. To compare the results with reference population.
3. To determine the relationship between life style and obesity in Qatari school children.

Methods

Study was conducted on a sample from Qatari school children. A representative sample (1500 children) were selected between the ages of 6-12 from 23 schools using multistage cluster random sample, while 200 cases from each age group were targeted as primary sampling unit.

Results

The study showed that about half of the sample subjects suffer from malnutrition, in which 23%, 16 % and 8 % have obesity, overweight and underweight respectively and higher in boys than girls. While the study finds out relationship between life style and obesity the correlation flourished in physical activity, snacking between meals, and not having breakfast at home on regular basis.

Conclusion

Overweight considered a major health problem in school children. Unhealthy nutritional habits flourished among all levels of schoolchildren. There is a need for special educational interventions that target dietary and promote healthy eating life styles among children.

Key words: Obesity, lifestyle, school children

Obesity and central adiposity in type II diabetes mellitus

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Introduction and Objective: Diabetes mellitus, as a major health problem, is related to lifestyle factors such as physical activity and obesity. The aim of this study was to compare the extent of obesity and central adiposity in type II diabetic patients.

Methods: In this cross-sectional study, 70 type II diabetic patients (18 male and 52 female aged 40-78 years) were studied. Weight, height, waist circumference (WC) were measured based on standard

approach and obesity indices including body mass index (BMI) and weight-to-height ratios ratio (WHtR) were estimated. Obesity was defined as BMI>29.9 kg/m², WHtR>0.50 and WC>88cm for women and WC>102cm for men. Dietary variety was estimated using food variety score (FVS) through completing a 169-food item food frequency questionnaire classified into 57 botanically food groups.

Results: Mean BMI, WC and WHtR were 28.6±4.03 kg/m², 101.43±10.09 cm and 0.63±0.07. Overweight and obesity was found in 40% and 37.1% based on BMI, and central obesity was found in 92.9% and 97.1% using WC and WHtR. Proportion of obesity for each index was not significantly associated with gender and age. BMI was significantly correlated with WC in total (r=0.722, p

Maternal Body Mass Index during First Trimester of Pregnancy and Gestational Diabetes

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Introduction: One of the factors affecting gestational Diabetes is maternal body Mass Index (BMI). This study was designed to investigate the incidence of gestational Diabetes & association between maternal BMI during first trimester of pregnancy with gestational diabetes.

Methods: In this cross-sectional study, 538 singleton pregnant women in their 1 to 13 gestational weeks presented at prenatal care clinic of Milad Hospital, Tehran during 2009-2010 were recruited in the study using convenience sampling. Screening test for gestational diabetes was conducted during in second trimester of pregnancy. Weight and height were measured and BMI was calculated. Women with BMI less than 25 kg/m² were categorized as non-obese. Overweight and obesity were defined as 25≤BMI≤30 and BMI>30, respectively. SPSS statistical software was applied for statistical analysis.

Results: The maternal age was 27.5 ± 3.9 years and parity was 1.6±0.7. There were no significant difference between 3 groups. The weight gain during pregnancy was 12.5 ± 4.1 kg. The incidence of GDM was 17.9% among whom the prevalence of overweight and obesity was 22.7 and 25.4%. Overweight and obesity were associated with increased GDM (OR 1.98; 95% CI 1.18-3.33) for overweight and (OR 2.29; 95% CI 1.18-4.45) for obesity.

Conclusion: It seems the incidence of GDM in Iranian pregnant women is more than other countries. A true increase in GDM incidence might reflect or contribute to the increases in the prevalence of diabetes and obesity. **Keywords:** Gestational diabetes, Body mass index, Obesity

Comparison of coronary heart disease risk factors in diabetic patients and non-diabetic in Qazvin

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Objective: To assess the role of the classical CHD risk factors in diabetes patient and comparison with non-diabetic subject to planning for primary and secondary prevention in high risk population.

Study design and methods: A cross-sectional study was designed to assess the level of modifiable risk factors of coronary heart disease (CHD) for fulfillment interventions to reduce CHD risk in diabetic patients. A total number of 100 diabetic patients were compared to 140 non-diabetic patients who were visiting metabolic clinic at Qazvin, Iran 2010. The study groups were interviewed through structural questionnaire containing clinical, anthropometric and laboratory question. The gathered by trained nurses and analyzed statistically.

Results: The mean age of case VS control group was 46.25 ± 1.54 VS 45.71 ± 1.01 . Overall, 42% of population was with diabetes mellitus, and 58% were non-diabetic. Comparison of CHD risk factors between case and control groups showed no significant differences between two subgroup base on HDL-C, LDL-C, total cholesterol, HDL-C 40, sitting or reclining time on a typical day and moderate physical activity minutes per day.

Validation of food variety as an indicator of diet quality assessed with a food frequency questionnaire in cardiovascular disease patients, 2008-2009

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Background and Purpose: Indicators of diet quality assessment and food behavior in relation to chronic disease have been more considered compared with certain nutrient evaluation. One indicator of diet quality is food variety score (FVS). The purpose of present study is the validation of FVS index by food frequency questionnaire (FFQ) in cardiovascular(CVD) patients.

Material and Method: The present descriptive - analytical study was conducted on the patients with CVD at the Imam Reza hospital, Tabriz. For gathering data, a FFQ including 32 items that was been designed for CVD patients and FVS questionnaire contain 49 food items in the shape of 14 group were used.

Results: A study population was 160 people (86 males and 74 females) in age range 39-64 years. There was significant positive correlation between FVS from checklist and FVS from FFQ($r=0/38$, P

Health benefits of olive oil Oleuropein and Oleocanthal:

A general review Shayan Mohammad Moradi, Hamidreza Naji Isfahani, Aida Javidan, Fatemeh Torkaman1 1. College of Food Science and Technology, Science and Research Branch, Islamic Azad University, Tehran, Iran * Author of correspondence: Shayan Mohammad Moradi. Address reprint and correspondence to Shayan Mohammad Moradi, College of Food Science and Technology, Science and Research Branch, Islamic Azad University, Tehran, Iran*

Background and objectives: Olive and its oil are important food components which have different health benefits. Many of these benefits are due to presence of oleocanthal and oleuropein. The objective of this study was to conduct a systematic review on the benefits of these two compounds.

Methods: This systematic review was conducted by using Pubmed, Medline, Google scholar and Science direct data bases. "oleocanthal" and "oleuropein" were used as the keywords and among 133 articles , 23 articles in 5 languages were compatible with the study protocol.

Results: Different animal model studies and clinical trials indicated that oleocanthal and oleuropein in olive have positive effects in many diseases. Furthermore, these effects are due to different mechanisms. It was also found that the amount of oleocanthal and oleuropein are higher in virgin olive oil.

Conclusion: All studies concluded that oleocanthal and oleuropein in olive have many health benefits and they play an important role in the prevention and modulation of different diseases.

Keywords: oleocanthal, oleuropein, health benefits.

Effects of Pro-biotic cheese and raw chicory root extract on lipid profile: a triple blinded randomized controlled trial

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Background: The role of Pro-biotic and Prebiotics as cholesterol reductive agents has drawn a great deal of attention. There have been few studies, investigating the effect of Prebiotics and cheese as a Pro-biotic carrier on lipid profile.

Objectives: The purpose of current study was to evaluate the effect of Pro-biotic cheese and chicory root extract consumption on lipid profile during a 4 wk period. Design: It was a triple blinded parallel randomized controlled trial in Tehran, Iran. 30 volunteers aged 18 – 65 were participated and their total Cholesterol was 4.4 - 5.15 mmol/l. Participants were randomly assigned into three 10-person balanced groups and consumed 30 g Pro-biotic cheese containing *Lactobacillus acidophilus* LA5 and *Bifid bacterium lactis* BB12 with extract of 30 g raw chicory root, daily (intervention 1), 30 g of Pro-biotic cheese (intervention 2) and none of the above (control group). Fasting blood samples and anthropometric measurements were collected in the beginning and after the consumption period at the Path biology Laboratory Center and SRBIAU Nutrition clinic, respectively.

Results: There was a significant reduction within both intervention groups throughout the study; intervention 1: (LDL: -0.79; 95% CI: -0.96, -0.61; P

Effect of dietary whole walnut or walnut oil on atherothrombosis in ApoE-deficient mice

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Introduction: Turkey Abstract Consumption of n-3 polyunsaturated fatty acids (PUFA) and antioxidant polyphenols is considered to decline the risk of cardiovascular disease.

To provide an explanation for this cardioprotective effect, we performed an intervention study with proatherogenic ApoE^{-/-} mice which were fed with high-fat diets supplemented with either walnuts (rich in n-3 PUFA and antioxidant compounds), walnut oil (with n-3 PUFA only) or sunflower oil as a control. Feeding walnuts for eight weeks lowered plasma levels of triglycerides, cholesterol and prothrombin. This was accompanied by a lower accumulation of lipids in the liver, while plasma antioxidant capacity was increased. On the other hand, feeding mice with walnut oil did not provoke significant changes in these parameters in comparison to the control diet. Markedly, feeding of walnuts caused a strong reduction in atherosclerotic plaque development in the aortic arch. This was associated with reduced staining of plaques for CD36, a scavenger receptor expressed by macrophages. Platelet activation and thrombus formation under flow were not changed with any of the diets. Taken together, these results indicate that, in ApoE^{-/-} mice on high-fat diet, intake of dietary

walnut (but not walnut oil) beneficially influences lipid metabolism and atherosclerotic plaque development, with no more than limited effects on platelet and coagulation function.

A pre-meal raisin snack lowers food intake in normal weight children

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Introduction and objectives: Energy intake and weight gain in children are influenced by specific eating patterns, such as snacking. Although frequent snacking is presumed to contribute to overweight in children and adolescents, snacking may be used to meet nutritional and energy requirements in children (Johnson and Anderson, 2010, Crit Rev Food Sci Nutr). The effects of snacking on energy intake in children have received little examination. Thus, there is a need to identify palatable snacks that increase satiety and lower food intake (FI) in young children. In the current study, we examined the effect of a fixed, pre-meal, 150 kcal snack of raisins, grapes, a mix of almonds plus raisins and a water control on appetite and FI 30 min later in 8 – 11 y old normal weight (15 - 85th percentile for age and sex) children. Twenty-six children (13 F, 13 M) received in random order one of four treatments 2 h after a standard breakfast. FI at an ad libitum pizza meal was measured 30 min after treatment consumption and subjective appetite was measured throughout the study. Raisins reduced pizza intake by ~11% compared to water ($p = 0.005$). Cumulative energy intake (snack [kcal] + pizza [kcal]) was ~11% lower after water compared to either grapes or the mixed snack ($p < 0.015$), but was not different from raisins. Cumulative energy intake (snack [g] + pizza [g]) was ~36% lower after raisins and the mixed snack compared to either water or grapes ($p < 0.001$). Appetite scores were lower after grapes and the mixed snack compared to water ($p < 0.037$) and increased over time ($p < 0.05$).

conclusion, raisins resulted in lower pizza intake and did not increase cumulative energy intake, while grapes and the mixed snack resulted in greater overall energy intakes, compared to a water control. In contrast to other healthy snacks like grapes or the mixture of almonds plus raisins, raisins alone do not increase cumulative energy intake in children (Grant Funding Source, California Raisin Marketing Board)

Pseudo-allergies related to chocolate consumption in Morocco

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Introduction and objectives Its health benefits are numerous, namely its euphoric, antidepressant and antifatigue. On the other hand, this psycho-stimulator is a histamine liberator, rich in tyramine, and thus often implicated in “food pseudo-allergies”. To better understand the epidemiology of these adverse reactions in Morocco, we have established a retrospective study of cases reported by the Moroccan Poison Control Center between 2000 and 2008. We collected 33 cases during this period. The monthly distribution of declared cases shows a peak in winter (42%), corresponding to the consumption peak at Christmas. The median age of victims is 23 years. Men and women are affected

the same way ($P=0,27$). The average time between the onset of the first symptom and medical consultation is 21 hours, ranging from a few minutes to four days. The patients presented gastrointestinal (64,3%), general (14,3%), cutaneous (10,7%) and neurological (10,7%) signs. The digestive symptoms manifested by non-specific signs such as nausea (21,6%), vomiting (29,4%), abdominal pain (21,6%) and diarrhea (2%). Skin disorders observed are represented by a rash (3,9%), pruritus (3,9%) and urticaria (2%).

All patients have evolved positively. - Preferred presentation: poster - Abstract category: chocolate and health

An epidemiologic study of screening of diabetes in above30 years old persons in the area covered by West Tehran Health Center

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Introduction and objectives Today, there is no cure for diabetes, but effective treatment exists. Patients should be able to lead an active and healthy life and reduce the risk of developing complications .Good diabetes control means keeping blood sugar levels as close to normal as possible. The data collected from the records of West Tehran Health Center during first 6 months of 2011 about the screening persons above 30 years old (urban regions 2,5,6,9,18,21 and 22) were analyzed. The prevalence of hypertension among the patients surveyed, 12% was found. But among the women surveyed, the rate of 9% and 17% were found in men. In frequency of hypertension in the first visit was 9% of but this frequency decrease to 3.7% in second visit.Frequency of pre-diabetic persons in our study was17%but this rate among woman was 19% and in men was 15%. Results; The total number of 7012 patients was screened of which 67% (4729) women and 33% (2,283 persons) are men. Age of the patients surveyed was between 30 and 80 years, mean of age 59 years and mode was 54 years old. The most frequency of Age group belongs to 46 to 60 years old cases with 56%, the frequency of other age groups was 23% for 30 to 45 years and 23% for above 60 years olds. Frequency of pre-diabetes cases was 3.5% (243 people), which is 79% (192) women and 21% (51 cases) are men. 12.8% had a BMI under 25, 44.8% (108) between 25 and 30 and about 42% (102 patients) had a BMI above 30 at admission. Registered BMI information was between 19.2 and 34.Incidence of new diabetic cases, overweight parsons, fattiness, respectively was 2% ,42% ,30% .41% our understudy persons have been visited by nutritionist. There is not a significantly meaning of data between BMI levels of educations. Minimum HBA1c which recorded in our diabetic cases was 4.7 and the maximum value was 9.4. Low level HDL among men and women respectively surveyed (under35 infemale and under 50 for men) in total cases found around 4% and 77% .this frequency in pre-diabetic cases was 6,2% for females and 70% for men.

Recommendations : In general, the findings of the present study accompanied with the results gained from similar studies can be helpful for monitoring the results of changing life styles in prediabetic patients for facilitating levels. Key words: prediabetic; HBA1c; Tehran

Predictors of serum 25(OH)D in a population at risk for type 2 diabetes: the PROMISE (PROspective Metabolism and ISlet cell Evaluation) Cohort Study

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Introduction and objectives: Vitamin D [25-hydroxyvitamin D, 25(OH)D] is well recognized for its role in calcium metabolism and regulation. However, emerging evidence supports a role for 25(OH)D in numerous non-skeletal medical conditions including autoimmune disorders, cancer, cardiovascular disease, and diabetes. The majority of previous studies have examined predictors of serum 25(OH)D in specific populations, including individual ethnic groups and samples of diseased subjects. Our objective was to examine determinants of serum 25(OH)D in an ethnically-diverse Canadian cohort with risk factors for type 2 diabetes. **Research Design and Methods:** We examined 654 non-diabetic individuals from London (43° 02' N) and Toronto (43° 40' N), Ontario, Canada, age 30 and older, during 2004-2006. Serum 25(OH)D was determined using a chemiluminescence immunoassay. Sociodemographic and lifestyle variables were assessed using self-administered questionnaires, and anthropometric indicators were measured at the clinic visit. Multivariate linear regression analyses were conducted with independent variables age, sex, ethnicity, season of 25(OH)D measurement, PTH, physical activity, smoking, vitamin D supplement use and BMI.

Results: Mean baseline 25(OH)D concentration was 56.41 ± 23.17 nmol/L, with 42.2% of participants having 25(OH)D levels

Effect of sibutramine on weight loss and liver function status in patients with nonalcoholic fatty liver disease

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Introduction: Nonalcoholic fatty liver disease (NAFLD) represents a spectrum of clinical states characterized by accumulation of fat droplets in the liver cells of patients with no history of alcohol use. **The aim of this study** was to determine the effect of a weight loss diet with and without sibutramine on the components of metabolic syndrome and liver function. **Materials and Methods:** This single-blind randomized controlled clinical trial was performed in 40 obese patients with NAFLD (confirmed by ultrasound evaluation). Individuals were randomly divided into two groups; Sibutramin group who received sibutramine capsules (15 mg/day) half an hour before lunch in addition to a weight loss diet (500 kcal less than the energy requirement) and control group who received only weight loss diet. Weight changes, liver enzymes and ultrasound evaluation were assessed before and 3 months after the intervention.

Results: Mean age of the subjects was 38.90 ± 7.00 yrs. in sibutramine group and 36.55 ± 7.87 yrs. in control group. Mean weight loss after 3 months was significantly greater in sibutramine group (13kg vs 4 kg) (p

Prevention of Hemolytic Crisis among G6PD Children: Effect of Educational Program Intervention

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Introduction: Glucose-6-phosphate dehydrogenase deficiency is an X-linked recessive hereditary disease (abbreviated G6PD closely linked to favism,). This is a metabolic enzyme involved in the

pentose phosphate pathway important for red blood cell metabolism. G6PD deficiency is the most common human enzyme the precipitating factors for G6PD are commonly infection ,exposure to some medications or chemicals. G6PD deficiency is a disorder characterized by a hemolytic reaction to consumption of Fava beans, G6PD deficiency will manifest a physically observable reaction to consumption of broad beans.

Aim of the study, this study is a quasi experimental study, aimed to construct, implement and evaluate the effect of program intervention for prevention of precipitating factor for hemolytic crisis among G6PD children.

Subject & Methods, This study was conducted at pediatric department at children's Hospital affiliated to Ain Shams and Cairo University Hospitals. The study included all available children and their mothers at the previously mentioned settings regardless of their age and sex over a 6 month period

Tools of data collection Include pre-designed questionnaire to assess characteristics of the studied sample and their mothers' knowledge about G6PD. Program intervention was prepared by the researchers in an Arabic language according to the actual needs.

Results, The main results showed that the majority of the studied sample acquired the hemolysis attack because of unsatisfactory knowledge of their mothers about G6PD predisposing factors. The educational guideline and program were effective in improving the actual knowledge of mothers regarding G6PD and decreasing the hemolysis factors and attacks.

Conclusion: The current study concluded that the majority of children suffered from favism acquired hemolytic diseases because of unsatisfactory knowledge of their mothers regarding favism and the predisposing factors. Also, An educational program intervention was effective in improving the actual knowledge of mothers regarding G6PD predisposing factors and decreasing of the hemolytic anemia.

Recommendations This study recommended that, establishing a system for education in the hospitals regarding G6PD from the first time of diagnosis to prevent the complication from hemolysis.

Key words: *favism, G6PD, diet, life style, program, guideline ...*

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Probiotic Olive: from theory to practice

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Background and objectives: Nowadays the consumption of Probiotics is spreading worldwide and the understanding level of its benefits is increasing. The functional food industry is looking for varieties among the Probiotic products. The aim of present study was to conduct a systematic review on the using of Probiotic bacteria in the preparation of olive in order to have new Probiotic product.

Methods: This study was based on the searching of Pubmed, Medline, Google scholar and Science direct data bases. 20 articles were found with the usage of "Probiotic olive", "Lactobacillus" and "olive" and "new probiotic food" as the keywords and founded articles were used in writing this paper.

Results: Studies showed that some specific Probiotic strains can be used in the preparation of olives and these strains have a proper survival rate. Other studies also indicated that the amount of Probiotics will stay high after consumption and passing through gastrointestinal tract.

Conclusion: The adequate survival rate of specific strains can be used to conclude that the matrix in olive pulp is a suitable carrier for Probiotic bacteria and olive can be turned into a new functional food.

Conservative Treatment of Chylothorax Developed After Thoracotomy;

Case Presentation

Serdar Han(a), Aylin Aydın (c), Lütfi Soylu(b) a Ankara Güven Hospital, Department of Thoracic Surgery b Ankara Güven Hospital, Department of General Surgery c Ankara Güven Hospital, Department of Nutrition and Dietetics Chylothorax is one of complications that may rarely develop after thoracic operations.

Introduction and objectives; It increases the postoperative morbidity by 50% and mortality by 10%. Various treatment options in a wide spectrum are available for the treatment of chylothorax extending from diet up to surgery. Because the chylothorax developed after a thoracotomy makes the current situation more difficult, trying conservative methods is important before a second surgical intervention. But this evaluation should be fast and careful. If it didn't intervene in due time, operation may not provide any advantage. Our case is a 46 years old female patient and she had a right thoracotomy and total mass excision with the pre-diagnosis of a neurogenic tumor. She was mobilized on the 1st postoperative day and oral intake was started. Color of the fluid coming into the thorax tube became darker on second day and total drainage became 800 cc. It has been determined that laboratory analyses studied from samples taken there were in chylous character. Immediately a diet containing medium-chain saturated fatty acids (MCT) was started for the patient. An oral MCT treatment was also added together with it. Also, nutritional support therapy was given with a parenteral nutrition via a peripheral catheter. Concomitantly, ocreotid ampul 0.1 mg 3x1 was started subcutaneously, of which effectiveness has been determined before. Drainage of the patient became 400 cc at day 3 and 100 cc at day 4. his drainage was light in color on 5th day and laboratory values studied were normal. Thorax tube of the patient removed, whose control chest x-ray was normal, and she was discharged on 7th postoperative day. We observed that the patient was discharged earlier the previous case presentations. Also, any surgical operation that may be more morbid was avoided. Chylothorax that may develop after a thoracotomy should be determined quickly, immediately a parenteral and/or enteral treatment modal should be applied and ocreotid should be used as a support. Therefore, additional morbidity and mortality that may develop on the patient could be prevented and the patient can improve without any need for surgery. Keywords; chylothorax, thoracotomy, parenteral nutrition, medium-chain fatty acids

Fatty acids composition analyses of olive oils in North Cyprus

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Introduction: There is no database of any traditional foods components in North Cyprus. This study is going to be the first data in North Cyprus traditional foods. Olive oil is the main constituents of Mediterranean diet which is the major source of mono unsaturated fatty acids especially oleic acid. North Cyprus is a Mediterranean island and the main vegetable oil consumption depends on olive oil such as black olive oil and green olive oil.

Methods: We obtained 1 kg of black olive oil and 1 kg of green olive oil and send them safely to Scientific and Technological Research Council of Turkey Marmara Research Centre (TÜBİTAK-MAM) Food Institute for analysing energy and fatty acid composition. Atwater method used for determining energy and International Union of Pure and Applied Chemistry (IUPAC) method used for determining fatty acid composition. Results: Per 100 g of the black olive oil has 898 kcal and green olive oil has 899 kcal. According to fatty acid composition linolenic acid, linoleic acid, palmitic acid and oleic acid values are 0.71 g, 7.03 g, 15.85 g and 68.37 g in black olive oil, likewise 0.84 g, 14.87 g, 13.84 g and 63.3 g in green oil, respectively. Green olive oil which is produced from mature olives has linoleic acid almost two times more than black olive oil which is the product of immature olives. So, linoleic acid increases with olive maturity.

Conclusion: Black and green olive oils are most consumed traditional olive oils of North Cyprus. Nevertheless, olive oils fatty acid composition of this Mediterranean island doesn't have well informed. This study is important as to be the first data on this issue and there is a need for more studies

Lifestyle Indexes of Nutrition and Dietetics Students: Is There a Difference Between Classes?

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Introduction: Today, it's known that nutrition and lifestyle factors are related with most of chronic diseases. The aim of this study is to evaluate the life quality of nutrition and dietetics students who are educated for improve public's life quality.

Methods: Lifestyle Index (LI); integrating diet, physical activity, smoking, and alcohol use to provide a global tool of monitoring healthfulness of lifestyles. For this aim 24 hour dietary recall, antropometric measurements recall and besides that other information for lifestyle quality was collected between October 2010-January 2011. The universe is 54 english preparatory and 66 third class students who are register of Near East University, Faculty of Health Sciences, Department of Nutrition and Dietetics.

Results: English preparatory class and third class mean LI scores are 67.0 ± 15.0 and 68.1 ± 16.2 , respectively. So in both classes LI scores are good and ACI (alcohol consumption index), SI (smoking index) are the main components which are responsible for this results. Besides that, mean PAI (physical activity index) and DQI-I (diet quality index-international) scores are almost half of the maximum scores. In addition, the percentages of students who have good LI scores are %7.9 more at third class than english preparatory class. Therefore, it could be said that third class students life quality higher than english preparatory class. Conclusion: There is a need for more studies and longitudinal studies about nutrition and dietetic students life quality. This study is important as to be a first step of these longitudinal studies

Nutrient analysis of traditional dairy products of North Cyprus

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Introduction: Food composition has an important role in nutrition, dietetics and food-related sciences. Dairy products are most important food group in healthy nutrition. There is a lack of traditional food composition table in North Cyprus. This is a first step of nutrient analysis of most consumed traditional dairy products halloumi and nor (whey cheese).

Methods: Nutrient analysis of two types of halloumi (fresh and dry) and two types of nor (fresh and dry) are performed at Scientific and Technological Research Council of Turkey Marmara Research Centre (TÜBİTAK-MAM) Food Institute for chemical analyses in March 2011. Per cheeses were 1 kg and vacuum-wrapped. TÜBİTAK MAM Food Institute is accredited laboratory, according to “Mutual Recognition Agreement” of European Accreditation (EA) and International Laboratory Accreditation Cooperation (ILAC). Results: While fresh halloumi has the highest energy (349.0 kkal), protein (21.6 g) and fat (29.0 g) on the other hand fresh whey cheese has the lowest energy (166.0 kkal), protein (8.3 g) and fat (13.0 g) values for 100 g eligible portions. While dried whey cheese has the highest cholesterol (192.7 mg) value, fresh whey cheese has the lowest value (73.2 mg). In addition, halloumi’s calcium, phosphorus and zinc values are almost two times more than whey cheeses. Besides that, for four type of cheeses fatty acid patterns from high to low values are palmitic acid, oleic acid, stearic and miristic acid, respectively.

Conclusion: Despite of the limited sample analyses, this is important as being the first analysis of these traditional dairy products. This study underscores the need for more studies about national food composition database project. Therefore, national-international institutions and government should provide resources, equipment and supplies for food analysis, as well as training opportunities for researchers

Multimicro-nutrient sprinkle for Indonesian pregnant women.

Uken Soetrisno, Laurentia Miharja. MOH, INA.

Six formula differ in iron form have been chosen by 100 pregnant women in field. More than 85% women chose formula with iron-SO₄ or iron fumarate, add/no DHA. Flavor was major complain but can be accepted due to many positive effect to their health

What are some vitamin and mineral contents of commonly consumed vegetables in north cyprus?

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Introduction: Food composition databases underpin national dietary surveys, support epidemiological and experimental research in human nutrition and are essential in the development of dietary guidelines. Also food composition databases are used by dietitians to assess the dietary status of patients and to plan and evaluate the dietary adequacy of meals and diets. For these purposes, this study aimed to determine some vitamin and mineral compositions of commonly consumed vegetables in North Cyprus.

Methods: One kg of each vegetable were purchased from markets and then sent to Scientific and Technological Research Council of Turkey Marmara Research Centre (TÜBİTAK-MAM) Food Institute to

performe vitamin and mineral composition analyses. Magnesium, iron, zinc, potassium and sodium proximal compositions were determined by the method of the Association of Official Analytical Chemists (AOAC) 2010 and phosphorous was determined by AOAC 2005. Also vitamin C and beta-caroten were determined by the high-pressure liquid chromatography (HPLC) UV method.

Results: Results of nutrient analyses show that *Apium graveolens* contains 21.36 mg magnesium (Mg), 1.79 mg iron (Fe), 4.67 mg zinc (Zn) 301.7 mg potassium (K), 98.14 mg sodium (Na), 2.84 mg phosphorous (P), *Coriandrum sativum*, 45.47 mg Mg, 43.34 mg Fe, 1.7 mg Zn, 676.6 mg K, 49.29 mg Na, 45.0 mg P, *Malva sylvestris var. Oxyloba* 49.92 mg Mg, 3.64 mg Fe, 1.03 mg Zn, 540.4 mg K, 97.33 mg Na, 80.6 mg P, *Colocasia esculenta (large)* 27.94 mg Mg, 0.38 mg Fe, 0.76 mg Zn, 601.2 mg K, 6.67 mg Na, 3.25 mg P, *Colocasia esculenta (small)* 40.38 mg Mg, 0.62 mg Fe, 0.94 mg Zn, 604.5 mg K, 14.87 mg Na, 50.96 mg P, *Cynara cornigera* 12.69 mg Mg, 2.6 mg Fe, 1.59 mg Zn, 888.5 mg K, 220.35 mg Na, 11.48 mg P, *Centaurea hyalolepis* 58.14 mg Mg, 5.98 mg Fe, 2.99 mg Zn, 106.6 mg K, 95.98 mg Na 54.95 mg P and *Corchorus acutangulus L. (dried)* 663.7 mg Mg, 22.17 mg Fe, 3.66 mg Zn, 287.0 mg K, 10.62 mg Na, 322.23 mg P per 100g (Table 1). *Apium graveolens*, *Coriandrum sativum*, *Malva sylvestris var. Oxyloba*, *Colocasia esculenta (large)*, *Colocasia esculenta (small)*, *Cynara cornigera* and *Centaurea hyalolepis* have 33.16 mg, 152.83 mg, 152.83 mg, 6.11 mg, 5.46 mg, 1.65 mg, 79.46 mg vitamin C, 721 µg, 11237 µg, 11237 µg, 106 µg, 85.5 µg, 182 µg, 5292 µg beta-caroten per 100g, respectively. *Corchorus acutangulus L. (dried)* has no vitamin C and 17997 µg beta-caroten per 100g.

Conclusion: Accurate assessment of the intake of nutrients and other food components depends on the accuracy of the food composition databases. This is the first study in North Cyprus about the nutrient composition of commonly consumed vegetables. Comprehensive food composition and more food samples for these nutrient composition analyses are required and consequent production of food composition data can be considered as a contribution to new researches.

Acknowledgements : We would like to thank to TC/KKTC Scientific Research Projects (BAP-1) and Near East University for their financial contributions.

Are there any effects of ‘mediterranean diet’ on prevention of obesity in children and adolescents?

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Introduction: The Mediterranean diet is reported as a healthy eating pattern with protective effects on cardiovascular diseases, cancer, type 2 diabetes, obesity and oxidative stress related disorders. The aim of this study was to assess the relationship between Mediterranean diet and obesity status in Turkish Cypriot children and adolescents.

Methods: Body weight, height and waist, hip and mid upper arm circumferences were performed and body mass index (BMI) was calculated for determining the overweight and obese children and adolescents. To evaluate the children's and adolescents' nutrition status by the degree of adherence to the Mediterranean diet was assessed by the Mediterranean Diet Quality Index (KIDMED index). By distributing a 16 item questionnaire KIDMED index to a random sample of 9-18 (mean 13.9±2.74) years old, 290 children and adolescents (140 males and 150 females). KIDMED index (range 0-12) classified ≥8 score as optimal diet (high), 4-7 score as improvement need (medium) or ≤3 score as very low diet quality (low) according to the total score.

Results: It was found that 22.7% of the sample was classified as high adherers of Mediterranean diet, whereas 18.3% had a poor KIDMED index (Table 1). According to percentiles of BMI for age, 65.8%

were between 15-85th percentiles, 18.6% were between 85-95th percentiles, and 16.2% were above 95th percentile. Children and adolescents with at least an average KIDMED index were more likely to have high BMI ($p < 0.001$) (Table 2). This study has shown that adherence to the Mediterranean diet is inversely associated with being overweight and obese in this sample of 9-18 years old children and adolescents.

Conclusion: In conclusion, there is a need for national plans and politicals to encourage children's and adolescents' adherence to the Mediterranean Diet, also reducing the risk of obesity and obesity related disorders in North Cyprus.

Assessment of Food Habits and Their Association with Cardiovascular Risk Factors in Employees

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Background: Cardiovascular disease (CVD) is one of the most causes of mortality in worldwide. To provide new data for policy planners and health education programs, we evaluated the food habits and their association with cardiovascular risk factors in employees.

Methods: A descriptive, cross-sectional study, including employees of offices in the city of Sarvabad, the west of Iran in 2010 was conducted. Data were collected by using questionnaires including demographic factors and dietary habits. The individuals' food habits were ascertained using an 11-item food frequency questionnaire. Frequency of consumption of various food groups and beverages (i.e., meat, fish, milk, fruits, vegetables, cereals, oil, salt, fast food and etc) on daily, weekly or monthly basis was assessed. For statistics, STATA 11 was used; associations were calculated by t-test; $p < 0.001$). About 1.5% of employees had elevated blood pressure, 10.5% were smokers, 11.2% had family history of CVD, 5.9% were diabetes (male 3.7% vs. female 12.5%, $P < 0.001$) and 9.2% were obese. The mean of dietary habits of 11-item was significantly higher in the females, obese and diabetes, ($P < 0.001$) but the mean of dietary habits in smoker employees was lower than in non-smoker ones, $P < 0.001$). Comparison of Mean Dietary Habits by CVD risk factors are summarized as follows.

Conclusion: Majority of employees had high prevalence of cardiovascular risk factors such as obesity, diabetes, smoking and family history of CVD. Therefore, the results suggest that nutrition education for employees needs to be more focused on the improvement of dietary habits of staff

Can we use coriandrum sativum as an orexigenic Agent?

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Aim: Losing weight as a consequence of appetite loss is one of the important problems which threatens survival of patients especially on hospitalized patients. Although there are some chemical drugs for increasing appetite, in most of the cases side effects are determined. So appetite improvement by the means of complementary medicine may be on the options. In this study we examined the effect of herbal extract of coriandrum sativum on increasing appetite level in rats.

Methods: 24 male rats in 4 groups were provided 3 different doses of coriandrum sativum via gavage (50, 100 and 150 mg per Kg) and normal saline as control group every day for a week. From 2nd day, their exact food intake was measured by weighing their food supply.

Results: Coriandrum sativum could affect rats' appetite significantly in 2 higher doses (100 and 150mg/Kg, P-value <0.05).

Conclusion: These finding suggested that coriandrum sativum had a positive effect on appetite in rats.

Key words: appetite, coriandrum sativum, herbal medicine

The effect of low-caloric diet with or without aerobic Exercise on serum transaminases' levels in patients with Non-Alcoholic Steatohepatitis

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Introduction: Nonalcoholic Steatohepatitis (NASH) is part of a broad spectrum of nonalcoholic fatty liver disease. To date, no medical treatment has been proven. We aimed to compare the effect of aerobic exercise along with diet and diet alone on serum aminotransferases levels, anthropometric indices, and cardio respiratory fitness in patients with NASH.

Methodology: Twenty-three NASH patients with the age of range of 25 to 50 years old were randomly divided in two groups and underwent aerobic exercise along with diet (n=12) and diet alone (n=11). In this study, low-caloric diet in both groups included 500 kilocalories of energy less than estimated daily energy requirement. The first group addition to diet, participated in aerobic exercises consisted of walking, jogging and running, for a period of 8 weeks, 3 days a week with 55–60% heart rate reserve. Serum aminotransferase levels, anthropometric indices, and peak oxygen consumption were measured before and after eight weeks of the intervention. Data were analyzed by Paired Samples and Independent-Samples T Test, at a significance level of P<0/05.

Results: Although, no significant difference was noted in patients on diet alone, serum ALT and AST levels were significantly decreased in patients underwent diet and exercise. Anthropometric measurements were decreased and peak oxygen consumption was increased significantly in both groups; however, there were significant difference between two groups in variables WC, WHpR, WHtR and VO₂ peak.

Conclusion: Aerobic exercise along with low-caloric diet may be more effective than low-caloric diet alone-in treatment of patients with non alcoholic steatohepatitis.

Keywords: Aerobic training, low-caloric diet, Aminotransferase, Non-alcoholic Steatohepatitis.

Can we manipulate ghrelin concentration using Achillea Millefolium in rats?

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Aim: The aim of this study was the evaluation of the effects of Achillea Millefolium (Yarrow) on food intake and it's influence on the total ghrelin plasma level as a possible mechanism of it's effect

Method: This study carried out on thirty free-feeding male Wistar rats. The rats were divided into five groups with 6 animals in each group: rats were administered oral Hydroalcoholic extrac of Achillea Millefolium in doses of 50, 100, 150 mg/kg or distilled water as vehicle and a control group. The 24-h food consumption of animals was measured for ten consecutive days. Then food intake was measured at 1, 2, 4, 6 and 24 hours following administration doses for 7 days to determine the orexigenic dose of Yarrow

In the second step of this study 2 groups with 6 animals in each of them, were administered Achillea Millefolium extract or distilled water. These rats were anaesthetized with Urethane. Blood samples were taken from the jugular vein of each rat 0.5, 1, 2 and 4 hours after extract administration for the measurement of ghrelin plasma level by ELISA

Results: There was significant increase in food intake following doses of 50 and 100 mg/kg. These increases were seen at 2, 4, 6 and 24 hours compared to vehicle group. But 24-h food consumption was decreased by dose of 150mg/kg

The effect of achillea millefolium on the ghrelin plasma level had a significant decrease at 1 hour after taking extract compared to control. There was no significant difference between extract and control group on 0.5, 2, 4 hours

Conclusion: These results indicate that Achillea Millefolium had a dose – dependent effect on appetite and its mechanism was not related with increase of ghrelin plasma level

Key words: Achillea Millefolium (Yarrow), Hydroalcoholic extract, Ghrelin, Appetite.

Comparison of Intensive insulin therapy (reclaimed) versus conventional therapy in patients on parenteral nutrition with traumatic brain injury

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Aim: The aim of this study was the comparison of the effects of two methods of blood glucose control in ICU patients about nutritional status, biochemical markers, severity of disease and mortality rate.

Method: We conducted a randomized controlled trial study where patients with brain trauma in grade 2 & 3 that received at least 50% of nutritional needs from parenteral nutrition. They randomly assigned to receive IIT or conventional glucose control. Mortality, survival, episodes of hypoglycemia , APACHEII score and it's variations in any group, C-Reactive protein ,mid arm circumference, electrolytes, liver function tests, lipid profile variations, duration of ventilator dependency , duration of ICU, hospital stay and mortality were assessed.

Results: Of 29 patients randomized, 26 patients completed the study. Survival duration was improved in tight control group but not significant between two groups. MAC, LDH and CRP were improved in tight group. Ventilator dependency and mortality was not different significantly between them.

Conclusion: These results indicate that IIT improves the nutritional status, disease control and survival of the patients that receives parenteral nutrition and no episodes of hypoglycemic events were occurred.

Key words: Parenteral nutrition, intensive insulin therapy, hypoglycemia, survival

Association with G-2548A LEP Polymorphism, Body Mass Index, Plasma Leptin and Lipid Levels in Turkish Obese Woman

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Background: Variants in leptin gene (LEP) have been implicated in the pathogenesis of obesity. In this research, we aimed to investigate whether polymorphisms LEP G-2548A and plasma leptin levels are associated with obesity and metabolic traits in Turkish woman population. Methods: We randomly selected our patient from two clinical centers in Hatay. Three hundred ninety two blood samples divided in obese (body mass index, BMI ≥ 30 kg/m²), and non-obese in this study (two hundred sixteen women obese, one hundred seventy six women non-obese). Blood samples were collected for DNA extraction, plasma leptin and serum lipid measurements. LEP G-2548A genotypes were identified by a polymerase chain reaction (PCR) and restriction fragment length polymorphism (RFLP) strategy using the restriction endonuclease Hha I.

Results: Consequently in this research group who carrying A allele gene had nine times higher risk of obesity than carrying G allele genes (OR: 9.212, p

Effects of cafeteria diet on markers of oxidative status / antioxidant (blood, liver, muscle) in Wistar rate during gestation.

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Overfeeding induces obesity with metabolic alterations.

The aim of our work is to determine the effects of cafeteria diet, a hyperlipidic and hypercaloric diet on lipid, glucose metabolism and oxidant/ antioxidant status in rate during gestation. The cafeteria diet induced obesity resulting from hyperphagia, associated with increased adipose tissue, hyperglycemia and hyperlipidemia in pregnant rates. Alterations of oxidant/ antioxidant status are observed with a reduction in total antioxidant capacity (ORAC) and an increase in plasma and tissue levels of malondialdehyde (MDA), hydroperoxides (HYDP), carbonyl proteins (PCAR) and markers of lipoprotein oxidation conjugated dienes (DC).^{1,2} References 1. Bouanane S, Benkalfat NB, Baba Ahmed FZ, Merzouk H, Soulimane Mokhtari N, Merzouk S, Gresti J, Tessier Ch, Narce M (2009). Time course of changes in serum oxidant/antioxidant status in cafeteria fed obese rats and their offspring. Clin. Sci. 116: 669 - 680. 2. Levine SA, Kidd PM (1996).

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A survey of energy drink consumption patterns and Knowledge among bodybuilder athletes in Southwest of Iran

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Background: Over the last years, sports and energy drink consumption has continued to gain popularity among young people in Iran. Although energy drinks are targeted to young adult consumers, there has been little research regarding energy drink consumption patterns among body builder athletes. The purpose of this study is to determine the consumption of sports and energy drinks and the sports student's knowledge about them.

Method: A total of 800 athletes (400 males and 400 females) from Fitting and bodybuilding Clubs in Shiraz were included to this study. Results and

Results:

Results of this study showed that most of the participants and also do not know the ingredients of them. The consumption of energy drinks has enhanced rapidly in recent years. Awareness of athletes of the ingredients and potential health hazards of this kind of beverage should be increased.

Conclusion: Using energy drinks is a popular practice among athletes especially in Fitting and bodybuilding Clubs for a variety of reasons. Further, side effects from consuming energy drinks are fairly common.

Keywords: Knowledge, bodybuilder athletes, South of Iran, Energy Drinking

Effect Of Consumption Of Dairy Products On Weight Loss In Obese Women Celik N*,

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Background: This randomized controlled study was conducted to determine the effect of consumption of dairy products on weight loss in 65 volunteer women aged 18–49 years whose mean age were 33.10±6.18 years and body mass index (BMI) were 30.0-39.9 kg/m².

Materials–Methods: Women were randomly assigned into three groups based on consumption of dairy products; low dairy group (n=22), high dairy group (n=23) and control group (n=20). Women in both groups were on a weight loss program for 12 weeks. Body weight, height, BMI, waist and hip circumferences, waist/hip ratio, bioelectric impedance analysis (BIA) and some biochemical findings were measured before and after the study.

Results: Body weight, BMI, waist and hip circumferences, waist/hip ratio, body fat percentage and fat mass significantly decreased within the groups (p

Food Consumption And Chronic Pulmonary Diseases Tuba

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Introduction: Demographic characteristics, determination of body composition and anthropometric measurements and nutrient consumption, are as important criteria in determination of nutrition situations of asthma and COPD patients, and formation and follow-up of medical nutrition treatments.

Methods: Physical examination, body composition analysis and anthropometric measurements of the working group were made on the same day, and query records pertaining to 3 days of retrospective nutrient consumption were taken. Statistical examinations were made with 'Statistical Package for Social Sciences (SPSS) Windows 17.0' Windows bundle program, and the results were evaluated within 95% confidence interval and p0,05).

Discussion: Demographic characteristics, determination of body composition and anthropometric measurements are compared with daily FA consumption was found to be proportional to each other.

Nutrition and Wound Healing Nutrition plays a crucial role in wound healing, Recommendations to patients with wounds should be to consume a healthy balanced diet, with sufficient quantities of energy and protein foods.

Introduction: All patients with wounds should have appropriate nutritional assessment through the multidisciplinary team Nutritional Status at the time of trauma or surgery influences the biochemical processes necessary for the phases of normal healing to occur. &Proper nutrition is imperative for prevention and treatment of wounds Optimal nutrient intake to promote wound healing is unknown but there are increased requirements for: – Energy – Protein – Vitamins A, C and E – Zinc – Arginine Often patients are fed overnight by tube and encouraged to eat during the day, with the aim to wean them off tube feeding as nutritional status improves.

♣ Protein depletion can affect the rate and quality of wound healing. There is an increase in demand for protein in the presence of a wound, a requirement further increased in the event of sepsis or stress. The amino acid arginine becomes essential during severe stress. It is abundant in the structure of collagen, and increases its tensile strength. Arginine metabolism is also related to the production of nitric oxide, which is bactericidal, and also aids wound healing through micro vascular and hemodynamic changes. As part of the healing process the body enters a hyper metabolic phase, where there is an increase in demand for carbohydrate. Cellular activity is fuelled by adenosine triphosphate (ATP) which is derived from glucose, providing the energy for the inflammatory response to occur. Fats have a key role in cell membrane structure and function. Certain fatty acids are essential, as they cannot be synthesized in sufficient amounts, so must be provided by diet. The role of essential fatty acids in wound healing is unclear, but as they are involved in the synthesis of new cells, depletion would certainly delay wound healing. It is debatable as to whether omega-3 polyunsaturated fatty acids (PUFAs) are more beneficial than omega-6 PUFAs. Omega-3s are anti-inflammatory, which aids wound healing, but may inhibit clotting which is disadvantageous For vitamins B-Complex vitamins are co-factors or co-enzymes in a number of metabolic functions involved in wound healing, particularly in the energy release from carbohydrates. Vitamin C has an

important role in collagen synthesis, in the formation of bonds between strands of collagen fiber, helping to provide extra strength and stability.

There is loads of evidence showing increased requirements for vitamin C during injury, stress and sepsis, but there is no evidence that mega dosing improves clinical outcomes, Vitamin K is involved in the formation of thrombin, and deficiency in the presence of wounds could lead to a hematoma. Vitamin A is also involved in the cross-linking of collagen and the proliferation of epithelial cells. As the minerals Zinc is required for protein synthesis and is also a co-factor in enzymatic reactions.

There is an increased demand for zinc during cell proliferation and protein secretion. Zinc also has an inhibitory effect on bacterial growth, and is involved in the immune response. Early studies suggest zinc supplementation, over and above that of the hospital diet, speed wound healing. Recent studies have shown no benefit, unless the patient has low serum zinc status, Iron is a co-factor in collagen synthesis, and deficiency in iron delays wound healing. Copper is also involved in collagen synthesis.

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Resistin and Visfatin Relation to Inflammatory Markers in Obese Type II DM Egyptian Patients

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Introduction:Obesity elicits a chronic low-grade systemic inflammatory response that results from a combination of increased insulin resistance and an increased production of inflammatory mediators by the expanding pool of adipocytes. The role of adipocyte hormones in modulating insulin sensitivity and glucose tolerance are of increasing interest and importance in studies of type 2 diabetes mellitus. Recently, several signaling molecule, as resistin and visfatin , have been proposed as playing a role in the pathogenesis of obesity-related insulin resistance, but their relevance to human diabetes remains uncertain. Therefore, we assessed the relationship between these two adipokines serum concentrations and insulin resistance in lean, overweight and obese non-diabetic and obese diabetic Egyptian. Also, we explore the relationship of resistin, visfatin levels with inflammatory markers(hsCRP –IL-18) and anthropometric parameters in morbid obese patients. We measured fasting serum resistin levels in 24 obese diabetic patients with a mean body mass index (BMI) of 53.7 ± 5.43 kg/m², 29 obese non-diabetic patients with a mean BMI 52.5 ± 6 kg/m² and in 30 lean subjects with a mean BMI of 30.4 ± 9.2 kg/m². Insulin resistance was assessed using the homeostasis model assessment for insulin resistance formula derived from fasting insulin and glucose levels. The concentrations of fasting serum resistin showed significant differences among the three groups ($P < 0.001$). Mean serum resistin concentrations increased from lean (5.9 ± 0.4) 11.59 to obese non-diabetic (27.7 ± 2.7) to obese diabetic (51 ± 8.2 ng/mL) . Significantly higher levels of visfatin ($P < 0.01$) occurred in the obese diabetic (41.7 ± 3.3) and the obese non diabetic (51.4 ± 6.1) compared to the lean subjects (8.3 ± 1.9). Significantly higher levels of glucose ($P < 0.001$) and values for the homeostasis model assessment ratio (HOMA-R) ($P < 0.01$) occurred in the obese diabetic and the obese non diabetic compared to the lean subjects. Furthermore, resistin correlated significantly and positively insulin ($r = 0.43$, $P < 0.05$), HOMA-R ($r = 0.56$, $P < 0.01$) and with hsCRP ($r = 0.41$, $P < 0.05$) in diabetic subjects. Also, visfatin correlated significantly and positively insulin ($r = 0.53$, $P < 0.01$), HOMA-R ($r = 0.6$, $P < 0.01$) in obese diabetic subjects. . In obese non-diabetic subjects, visfatin correlated with insulin ($r = 0.49$, $P < 0.05$) and HOMA-R ($r = 0.44$, $P < 0.05$). Resistin shows no correlation with insulin , HOMA-R, homa in the lean and obese non-diabetic groups. . These data indicate that these two adipokines might be involved in the development of diabetes in humans

Assessment of Anthropometric indices in Girls with True Premature Puberty Treated with Gonadotropin Releasing Hormone Agonists

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Background/Aims: Obesity occurs at a high rate among children with central precocious puberty (CPP) and the present study was performed to evaluate anthropometrics following treatment in girls with idiopathic central precocious puberty (ICPP).

Method: The 59 less than 9.4 year-old girls with ICPP were enrolled in this study. Treatment with GnRH agonist was begun after an initial evaluation and they were followed clinically until one year of starting the study. Weight and height were measured and body mass index (BMI), BMI SDS, BMI percentile, height/weight SDS were determined. Patients were classified as normal, overweight and obese at baseline and 1 year after GnRH-a therapy according to BMI z-scores.

Results: The mean of BMI SDS, BMI percentile, height SDS and weight SDS increased but the differences were not significant (at baseline: 53.4% normal weight, 24.1% overweight and 15.5% obese. In the second measurement: 49.6% normal weight, 29.3% overweight and 22.4% obese). There was also a positive correlation between the age at the beginning of treatment and BMI increase and BMI increasing was the same in whom had normal or high pre-treatment BMI.

Conclusion: girls with CPP were prone to develop overweight and obesity 1 year after administration of GnRH agonist.

Nutritional status in intensive care unit patients: a prospective clinical cohort pilot study

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Background: Previous researches have shown that the nutritional status of patients in the intensive care unit (ICU) was poor on admission and appears to decline during their stay in the ICU. Critically ill patients are prone to malnutrition because their hypermetabolic disorders lead an increase in nutritional requirements that often are not met with the nutrition supplied.

Objective: The aim of this study was to assess the nutritional status and hs-CRP of ICU patients on admission and discharge from the hospital.

Materials and Methods: Twenty nine neurological ICU patients (20- 87 years old) underwent fasting blood sample collections, anthropometric measurements and impedance analysis on admission and discharge at Ghaem teaching Hospital. NRS 2002 was used to determine malnutrition in ICU patients.

Results: Markers of nutritional status changed from admission into the ICU until discharge as follows: weight, BMI and triceps skinfold thickness decreased ($p < 0.001$, $p < 0.001$ and $p < 0.005$ respectively). Hs-CRP was decreased over the stay in hospital (admission = 19.4 ± 16.3 , discharge = 13.8 ± 14.5 , p value = 0.11). The percent of patients at risk of malnutrition decreased during stay in ICU (not significant).

Conclusions: Prevalence of malnutrition was as high as 47.6% on admission. The nutritional status of patients was slightly improved over the period of their stay in hospital using NRS 2002 method.

Keywords: Intensive care unit; NRS 2002; hs-CRP.