

bariatric surgical approaches of obesity have provided interesting results, not only in achieving and maintaining appropriate weight loss, but most importantly by the modulation of gut peptides, that has been shown to contribute to the improvement of diabetes, appetite sensations, and the metabolic changes associated. We evaluated the dietary intake, the nutritional assessment as well as the plasma levels of some gastrointestinal peptides that regulate food intake in obese nonalcoholic fatty liver disease (NAFLD) patients before and after bariatric surgery.

Material and methods: We enrolled 25 obese patients with NAFLD, 19 severely obese with NAFLD submitted to bilio-intestinal bypass, compared to 16 healthy normal weight controls. In all subjects food intake was evaluated by electronic program (WinFood, Medimatica s.r.l.). Plasma levels of PYY, GLP-1, GLP-2, GHR, ORE and CCK were determined by enzymatic immunoassay. Body composition was evaluated by impedentiometric analysis (BIA 101S). In severely obese patients all parameters were evaluated at 0 time and after 6 months after bariatric surgery.

Results: In obese patients we found: 1) a higher intake of nutrients, both as calories and as macro and micronutrients in respect to controls ($p < 0.05$); 2) a decrease of free fat mass ($p < 0.01$) and an increase of BMI ($p < 0.01$), fat mass ($p < 0.01$) and trunk fat ($p < 0.01$) in respect to controls; 3) a significant decrease of GLP-1 and an increase of GLP-2, GHR and PYY in respect to controls ($p < 0.05$); 4) further increase in GLP-2, GHR and PYY, and increase over control values of GLP-1 after bariatric surgery ($p < 0.05$ versus pre-surgery).

Conclusions: The bariatric surgery modifies the plasma levels of gastrointestinal peptides, thus changing the metabolic pattern of obese NAFLD patient.

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THE WESTERNIZATION OF THE TRADITIONAL ITALIAN EATING HABIT AND THE INCREASE OF OBESITY IN OUR COUNTRY

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Background and aim: Few contributions reported detailed informations on the diet composition in Italian obese subjects (Ricci G et al, 2011). However in the last two decades obesity prevalence has increased by 25% in our country (ISTAT, 2000). The aim was to investigate the dietary pattern by means of qualitative and quantitative determination of food intake in a representative sample of obese subjects.

Table 1

Anthropometric data	Obese patients
Sex (M/F)	48/104
Age (y)	40 (34, 48) 58
BMI kg/m ²	40.2 (35.2, 45.1) 51.5
Waist (cm)	117.1 (105.0, 129.6) 150.2

Values are expressed as 50th (25th, 75th) 95th percentiles.

Table 2

Nutrient intakes	Obese patients	RDA
Protein (g)	132.3 (109.7, 160.6) 197.8	64.7 (60.6, 71.4) 94.8
Animal Protein (g)	79.1 (58.2, 105.1) 142.3	21.7 (20.2, 23.8) 31.6
Fat (g)	144.6 (117.6, 169.7) 242.8	60.1 (57.2, 66.1) 93.3
SFA (g)	21.7 (16.4, 29.1) 45	24.1 (22.9, 26.4) 37.3
MUFA (g)	53.6 (45.1, 64.6) 97.7	48.1 (45.8, 52.9) 74.7
PUFA (g)	10.6 (7.7, 13.4) 20.3	16.8 (16.0, 18.5) 26.1
PUFA/MUFA	0.18 (0.14, 0.23) 0.40	0.4
Omega 3 (g)	1.0 (0.8, 1.3) 6.0	1.2 (1.1, 5.3) 7.5
Omega 6 (g)	8.0 (6.5, 10.7) 17.0	4.8 (4.6, 5.3) 7.5
Omega 6/Omega 3	8.1 (7.0, 9.8) 13.7	4
Oil (g)	50 (40, 70) 120	Not determined
Cholesterol (mg)	305 (203, 415) 654	300
Total CHO (g)	447.2 (375.5, 517.6) 754.7	366.4 (350.4, 408.1) 564.5
Simple CHO (g)	115.5 (84, 165.3) 265.5	69.3 (65.9, 76.2) 107.5
Fiber (g)	24.4 (19.3, 30.2) 45.9	30

Values are expressed as 50th (25th, 75th) 95th percentiles. RDA, recommended dietary allowance.

Material and methods: A total of 152 obese and severely obese subjects were admitted to the study. Anthropometric data were collected at the admission, under informed consent. Dietary habits were assessed with detailed questioning by an experienced nutritionist using a computed database which determined nutrient intakes, according to the Italian table of food composition. The recommended dietary allowances (RDA) for the Italian population were used as the reference range.

Results: The values are expressed as 50th (25th, 75th) 95th percentile in the tables. The comparisons with RDA show a significant difference for all intakes. In particular, proteins and fats are twice the RDA; animal proteins are three times the RDA.

Conclusions: Instead of the prevalent intake of complex carbohydrate (bread and pasta), the excessive consumption of protein, especially animal protein, could account for the oncoming Westernization in traditional Italian eating habit (Inelmen EM et al, 2008). The recent changes of the Mediterranean diet can explain the dramatic rise of obesity prevalence in our country.

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SUBJECTS WITH UNINVESTIGATED IRRITABLE BOWEL SYNDROME HAVE AN ALTERED NUTRIENTS INTAKE

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Background and aim: Diet seems to play a trigger role in irritable bowel syndrome (IBS) symptoms generation. However population based surveys evaluating dietary habits and nutrients intake in IBS patients are scanty. Aim of our study was to compare nutrients consumption between uninvestigated IBS and controls subjects.

Material and methods: We selected 95 subjects (39 males, median age 33) with IBS symptoms (Rome III Criteria; IBS-diarrhea: 60; IBS-constipation: 35) and 147 controls subjects (66 males, median age 27). Body mass index (BMI) was calculated. All subjects were invited to complete a validated Food Frequency Questionnaire (FFQ) and nutritional analysis was performed by Winfood Software. Data (mean \pm SD) were compared by unpaired T-test.

Results: IBS subjects were significantly overweight than controls (BMI 26.2 ± 3.4 kg/m² vs 24.7 ± 3.6 kg/m²; $p < 0.05$). No differences in kcal intake, proteins and carbohydrates consumption between IBS and controls subjects were found. IBS subjects had a significant lower consumption than controls of fat (64.8 ± 22.5 g vs 71.4 ± 18.4 ; $p < 0.05$), fibers (18.5 ± 5.9 g vs 22.5 ± 6.9 ; $p < 0.01$) and natural antioxidant substances (Vit A: 786 ± 343 μ g vs 1121 ± 535 , $p < 0.01$; Vit C: 129 ± 77 mg vs 162 ± 83 , $p < 0.01$; Vit E 9.3 ± 3.4 mg vs 13.2 ± 4.2 , $p < 0.01$; Selenium 25.1 ± 14.2 μ g vs 35 ± 18 , $p < 0.01$).

Conclusions: Overweight and unbalanced diet with lower intake of fiber and natural antioxidant substances (vitamins, minerals) are associated to symptoms of uninvestigated IBS. Further investigations need to evaluate diet in IBS subtypes.

P.06.5

DIABETES AND GASTROINTESTINAL DISORDERS: THE EFFECT OF INTESTINAL METHANE PRODUCTION ON GLYCEMIC CONTROL

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Background and aim: At the state of art it isn't known the correlation between diabetes and lower gastrointestinal disorders. Some studies show a significantly higher prevalence of small intestinal bacterial overgrowth (SIBO) in patients with type I diabetes. No data exists about gastrointestinal methane (CH₄) production in patients with diabetes. Aim of our study was to evaluate the effect of methanogenic flora eradications on glycemic control and daily