

POSTER SESSION: CLINICAL NUTRITION PRACTICE AND RESEARCH

MENU CHOICES OF HOSPITALIZED PATIENTS WITH MALIGNANCY DIAGNOSES VS. HOSPITALIZED PATIENTS WITHOUT MALIGNANCY DIAGNOSES. M.A. DeBasse, MS, RD, CNSD, M.M. Fairchild, MA, RD, and R.Brown, DTR, Yale-New Haven Hospital, New Haven, CT

It has been well documented in the literature that patients (pts.) with malignancy diagnoses experience a variety of taste changes and food aversions related to their disease and/or treatment. Most frequently cited are taste changes or aversions for meat (especially red meat) and sweet foods. Therefore, a study was developed to determine menu choices of hospitalized oncology pts. to prompt cost effective, nutritious menu planning for a new bone marrow transplant unit kitchen. Pts. with malignancy diagnoses were studied to determine if they chose non-meat entrees and less sweet desserts more frequently than other hospitalized pts. Pts. admitted to the oncology service at Yale-New Haven Hospital with regular or soft diet orders were randomized into the experimental group. The control group was randomized from pts. admitted to the orthopedic service with the same diet orders. Upon enrollment into the study, demographic information (eg, age, sex, diagnosis) was recorded, and pts. were interviewed regarding any pre-existing history of food dislikes or aversions. For a period of three weeks, menus from the two study groups were reviewed daily prior to menu correction, and entree and dessert selections were tallied. Data were separately analyzed to determine percent of choices for each of five categories: red meat (beef), other meat (chicken, pork, fish), non-meat, sweet (exception: canned and fresh fruit), and fruit, from the total number of choices. There were a total of 37 subjects (16 experimental and 21 control) enrolled in the study. For entree selection, the experimental group primarily chose red meat (56%), followed by non-meat (26%) and other meat (18%). The control group primarily chose other meat (56%), followed by non-meat (24%) and red meat (20%). For dessert selection, the experimental group primarily chose sweet desserts (69%) over fruit (31%). The control group results were similar, choosing sweet desserts (63%) over fruit (37%). The results appear to suggest that, contrary to the current literature, there is no significant difference in menu choices between hospitalized pts. with and without malignancy diagnoses in the selection of either red meat, other meat, or non-meat entrees, and sweet or non-sweet (fruit) desserts. The implication of these results suggests that patient menus should not necessarily be written to exclude any one type of food, and that studies of this type may be advantageous in promoting patient satisfaction for specific groups of hospitalized pts.

PREVALENCE OF OBESITY AMONG FIRST YEAR MEDICAL STUDENTS. RP Farris, RA Strada, M Zelman, RM Suskind.
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Body composition assessment: height (HT), weight (WT), triceps skinfold (TS) and bioelectrical impedance analysis (BIA), were obtained in 1990 (year 1) on 92 and in 1991 (year 2) on 113 first year medical students. Mean TS were 9.6 ± 3.8 mm year 1 and 10.6 ± 4.4 mm (year 2) for males and 16.7 ± 4.9 mm year 1 and 16.3 ± 4.7 mm (year 2) for females. Comparison with NHANES showed 3 males and 0 females with TS > 90th percentile. Mean body mass index (BMI) for males was 24.3 ± 2.7 kg/m² year 1 and 23.6 ± 2.2 kg/m² (year 2) and 21.6 ± 2.5 kg/m² year 1 and 20.9 ± 2.3 kg/m² (year 2) for females. Comparison with NHANES for BMI showed 5% of males and 6% of females had BMI \geq 85th and < 94th percentiles and 2% of males and 0 females had BMI > 95th percentile. Fifty-eight percent (year 1) and 68% (year 2) of males and 66% (year 1) and 51% (year 2) of females had a desirable BMI ($20-24.9$ kg/m²), 37% (year 1) and 28% (year 2) of males and 9% (year 1) and 11% (year 2) of females had Grade I Obesity ($25-29.9$ kg/m²) and 2% males and 0% females exhibited Grade II Obesity ($30-40$ kg/m²). Mean percent body fat (%BF) was 16.7 ± 4.1 (year 1) for males and 25.2 ± 5.9 (year 1) for females, with a range of 6-34% for males and 13-45% for females. Comparison with Cooper Clinic percentiles showed 7 (12%) (year 1) and 15 (20%) (year 2) males and 7 (20%) (year 1) and 7 (19%) (year 2) females in the top quarter of the %BF distribution. Optimal %BF standards are < 18% BF for males and < 26% BF for females. Nineteen (33%) (year 1) and 24 (32%) (year 2) males and 16 (46%) (year 1) and 11 (30%) (year 2) females exceeded optimal %BF. Seven (20%) (year 1) and 5 (7%) (year 2) males and 17 (49%) (year 1) and 4 (11%) (year 2) females had desirable BMI but exceeded the 75th percentile for %BF. BMI does not identify females with a disproportionate lean to fat ratio. Studies have demonstrated the high correlation of obesity to lipids and lipoproteins, insulin and blood pressure. Reduction of obesity has been shown to improve CVD risk factor variables. Continued efforts at early identification and intervention efforts for obesity are warranted.

PRENATAL RECOMMENDATIONS FOR WEIGHT GAIN AND CALORIC INTAKE: ARE DIETITIANS CONSISTENT WITH THE 1990 NATIONAL ACADEMY OF SCIENCES GUIDELINES? S.E. Dickinson, RD, Nutrition Services, University of Chicago Hospitals, Chicago, IL.

Many studies have been conducted on optimal weight gain during pregnancy, but few, if any, discuss what nutritional advice is actually given. The purpose of this study was to determine whether inconsistencies exist among dietitians in calculating requirements for weight gain and caloric needs. A national survey was sent to obstetric dietitians in 147 hospitals of more than 500 beds; 111 surveys were returned (76%), 102 were included in the study (69%). To calculate caloric needs, dietitians used kcal/kg most frequently (35%), then Harris-Benedict (HB) (31%); 23% of respondents used both methods. In calculating caloric needs for normal weight women, 32% of dietitians using the kcal/kg method added 300 kcal/day, whereas 76% of those using HB did so. For obese women, 19% of respondents using the kcal/kg method included 300 additional kcal, compared with 48% using HB.

In determining weight gain recommendations, the most frequently used factor was actual body weight before pregnancy. The mean ranges recommended for prenatal weight gain (in pounds) were: normal weight, 25-30; underweight, 30-38; overweight, 17-24; obese, 15-19; and teens, 30-36 pounds.

Approximately half of the respondents (53%) used some type of growth grid to monitor weight gain; 87% of these used a graph like the one described by M. Butman.

In this study, most recommendations for weight gain and growth grids were not consistent with the 1990 National Academy of Sciences (NAS) guidelines. This survey indicates there is a lack of consistency among dietitians regarding: caloric adjustments for pregnancy, appropriate weight to use in calculating caloric needs, appropriate ranges of weight gain for underweight, overweight, normal weight and teen pregnant women, and specific weight gain grid(s) for these groups. Further research is needed in these areas to allow for more consistency in prenatal counseling.

THE EFFECT OF CONCENTRATED PRETERM FORMULA ON VERY LOW BIRTHWEIGHT INFANTS WITH BRONCHOPULMONARY DYSPLASIA.

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Bronchopulmonary dysplasia (BPD) is the most common, disabling sequela of long-term mechanical ventilation in very low birthweight (VLBW) infants. Fluid restriction is a controversial medical intervention which can further compromise the nutrient status of these metabolically fragile infants. Current practices include the use of either a conventional preterm formula (PTF) delivered at less than optimal volume (<150 cc/kg/d) or a modified PTF (with caloric additives to 30 kcal/oz) fed at 120 cc/kg/d. These practices decrease nutrient intake and potentially compromise the VLBW infant's nutrient status and growth. A prospective, randomized study was conducted to compare the nutrient intake, fluid balance, gastrointestinal tolerance, growth, biochemical status and medications of infants with BPD on conventional (Cont 24 kcal/oz) versus concentrated (Conc 30 kcal/oz) PTF. Twenty-two ventilator dependent VLBW infants [Cont (765 \pm 213 g BW, n=11) versus Conc (716 \pm 155 g BW, n=11)] were enrolled at 28 days of age for an 8-week study period. Average fluid intake was significantly different (Cont 143 \pm 9.7 cc/kg/d; Conc 121 \pm 7.4 cc/kg/d, p < 0.001). However, nutrient and energy intakes (Cont 111 \pm 12 kcal/kg/d; Conc 112 \pm 11 kcal/kg/d), growth (Cont 18.7 \pm 50 g/d; Conc 16 \pm 37 g/d), and biochemical status were not significantly different. Conc PTF was well tolerated as assessed by normal GI function, serum electrolytes and osmolality. Diuretic use did not differ between groups (Cont 6.2 \pm 12 d; Conc 3.5 \pm 3.7 d, p < 0.5). However, more infants in the Conc group received antibiotics (Cont 9/11; Conc 4/11, p < 0.03), suggesting increased morbidity. We conclude that morbidity may be decreased using approximately 120 cc/kg/d enteral fluid restriction in VLBW infants with BPD. A concentrated preterm formula is tolerated and appears to be an appropriate feeding to maximize nutrient intake and status during periods of enteral fluid restriction.