3rd International Conference on
DIABETES, NUTRITION, METABOLISM & MEDICARE
July 25-26, 2019 | Amsterdam, Netherlands

J Diabetol 2019, Volume 3

DIABETES, OBESITY AND WEIGHT LOSS

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In the US a study have been done to estimate the prevalence of obesity and diabetes among US adults. The study was done on random f 195005 adults aged 18 years or older residing in all states. The main outcome measures the body mass index, based on self-reported weight and height and self-reported diabetes. The results came as follow: The prevalence of obesity (BMI ≥30kg/m2) was 20.9% (An increase of 5.6%) and the prevalence of diabetes increased to 7.9, (An increase of 8.2%). Overweight and obesity were significantly associated with diabetes, high blood pressure, high cholesterol, asthma, arthritis and poor health status. Increases in obesity and diabetes among US adults continue in genders, all ages, all races, all educational levels and all smoking levels. Obesity is strongly associated with several major health risk factors. In another study they analysed data from a cohort of 51,529 US male health professionals, 40-75 years of age, who completed biennial questionnaires. During five years of follow-up 272 cases of noninsulin-dependent diabetes mellitus (NIDDM) were diagnosed among men without a history of diabetes, heart disease and cancer and who provided complete health information. Relative risks (RRs) associated with different anthropometric measures were calculated controlling for age and multivariate RRs were calculated controlling for smoking, family history of diabetes and age. They found a strong positive association between overall obesity as measured by body mass index (BMI) and risk of diabetes. Men with a BMI of ≥35 kg/m2 had a multivariate RR of 42.1 compared with men with a BMI <23.0 kg/m2. BMI at age 21 and absolute weight gain throughout adulthood were also significant independent risk factors for diabetes. Fat distribution, measured by waist-to-hip ratio (WHR) was a good predictor of diabetes only among the top 5%, while waist circumference was positively associated with the risk of diabetes among the top 20% of the cohort. These data suggest that waist circumference may be a better indicator than WHR of the relationship between abdominal adiposity and risk of diabetes. Although early obesity, absolute weight gain throughout adulthood and waist circumference were good predictors of diabetes, attained BMI was the dominant risk factor for NIDDM; even men of average relative weight had significantly elevated RRs. Further studies have been done on individuals who have progressed to pre-diabetes. A Finnish Prevention study and the diabetes prevention program showed conclusively that intensive lifestyle interventions decreased the overall risk of diabetes by 58%. Lifestyle interventions included a weight reduction of 5% or more, reduction of total fat intake to <30% of total calories and increased physical activity (≥4 hours/week). Even more encouraging is the report from the Finnish Prevention Study follow-up period averaging seven years, in which the intervention group saw a 43% reduction in risk of diabetes. A study shows that achievable weight loss has a modest effect on A1C levels. However, in several other studies, weight loss was not associated with improvement in glycaemia. Furthermore, other nutrition therapy interventions that tend to focus more on metabolic control and less on weight loss have been shown to improve A1C levels by 1–2%. It is likely that early in the course of the disease process, when insulin resistance is still prominent, either energy restriction or weight loss will improve blood glucose levels. But as the disease progresses and insulin deficiency becomes more prominent, it may be too late for weight loss to be helpful. In fact, at later stages of the disease, when medications, including insulin, need to be combined with nutrition therapy, prevention of weight gain often becomes the goal. However, glycaemic control should take precedence over concerns about weight.