Maternal Overweight and Obesity versus Breastfeeding Success

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Introduction and Aims: Maternal Obesity has been associated with a poor lactation in animal models but these results are inconclusive on investigations made with human. Because the prevalence of overweight and obesity is increasing dramatically among women in reproductive age mainly, in Portugal investigations that relate to the maternal obesity breastfeeding are necessary, which is the main purpose of this study. Based on the importance of a pregnancy planned and this point to the decreased HDL-cholesterol. The SNP was not significantly associated with other metabolic traits.

Methods: Obese young white men (n=753, BMI=31.0 kg/m²) at the draft board examinations and a randomly selected group (n=839) were examined in two surveys (mean age 35 and 45, respectively) using logistic regression to assess age-adjusted p-score odds ratios. Results: Fat body mass index was associated with the rare AA genotype (OR=1.21, p=4.6*10^{-10} and OR=1.21, p=1.0*10^{-10}, survey 1 and 2, respectively). Increased abdominal fatness was seen for the AA genotype measured as waist circumference (OR=1.21, p=2.3*10^{-6} and OR=1.39, p=5.9*10^{-6}), sagittal abdominal diameter (OR=1.17, p=1.3*10^{-5} and OR=1.18, p=0.011) and intra-abdominal adipose tissue (OR=1.21, p=0.005). Increased peripheral fatness measured as hip circumference (OR=1.18, p=1.3*10^{-5} and OR=1.18, p=0.005) and lower body fat mass (OR=1.26, p=0.002) was also associated with the AA genotype. The AA genotype also associated with decreased Stumvoll insulin sensitivity index (OR=0.93, p=0.02) and with decreased non-fasting plasma insulin (OR=0.67, p=0.02). All significant results for body fat distribution and metabolic traits were explained by a mediating effect of fat mass. Conclusions: The association of the A-allele of FTO rs9939609 to global body fatness throughout the range of fitness is confirmed, and this association explains the relation between the gene variant and body fat distribution, decreased insulin sensitivity and decreased HDL-cholesterol. The SNP was not significantly associated with other metabolic traits suggesting that they are not derived from the general accumulation of body fat.

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