Maternal obesity and attention-related symptoms in the preterm offspring.


Abstract

BACKGROUND:
Maternal pre-pregnancy obesity, in term-born children, is associated with an increased risk of attention problems, however this relationship has not been explored among children born extremely preterm.

AIM:
To estimate the risk of attention problems at age 10 years in children born very preterm to overweight (i.e., body mass index (BMI) 25-29 kg/m2) and obese (i.e., BMI≥30 kg/m2) women relative to the risk among children born to women who were neither overweight nor obese (i.e. BMI<25 kg/m2).

STUDY DESIGN:
Multi-center prospective cohort study.

METHODS:
A total of 764 children born before the 28th week of gestation and whose mother's pre-pregnancy height and pre-pregnancy weight were obtained at birth had an IQ≥70 at age 10 years when parents and teachers completed Child Symptom Inventory-4 questionnaires that included items about the presence of ADHD.

RESULTS:
Compared to children whose mother's pre-pregnancy weight was in the normal range (BMI<25 kg/m2), children were at increased risk of parent-identified ADHD behaviors if their mother was overweight (odds ratio (OR)=1.9; 95% confidence interval (CI): 1.1, 3.3), or obese (OR=2.3; 95% CI: 1.4, 3.9). They were not at increased risk of teacher-identified ADHD characteristics if their mother was overweight before her pregnancy (OR=1.0; 95% CI: 0.6, 1.8), or obese (OR=1.0; 95% CI: 0.6, 1.6).

CONCLUSION:
Maternal overweight and obesity are associated with increased risk of parent-identified ADHD characteristics at 10 years of age in children born extremely preterm.