**Results** Among children of African American mothers, 87/329 (26.4%) ever had AD while 19/157 (12%) of children of White mothers ever had AD. Overall, cord blood 25(OH)D levels were lower in children who ever had AD (geometric means=GM 30.6 vs 35.6 nmol/l, Wilcoxon Rank Sum=WRS p=0.02); but the difference was driven by White children (GM 39.7 vs 50.9 nmol/l, WRS p=0.036) and not African American children (GM 29.4 vs 29.6 nmol/l, WRS p=0.81). The association was also modified by season of birth. Lower 25(OH)D levels were found in children with AD born during summer (GM 35.8 vs 45.2, WRS p=0.02), fall (GM 28.1 vs 33.8, WRS p=0.036) and winter (GM 30.0 vs 33.7, WRS p=0.15), but not spring (GM 30.8 vs 31.4, WRS p=0.90).

**Conclusion** Cord blood vitamin D is associated with AD at 2 years of age in White but not African American children. The association is also influenced by season of birth.

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**P2-321 THE RELATIONSHIP BETWEEN BMI AND WHEEZING IN THE INTERNATIONAL STUDY OF ASTHMA AND ALLERGIES IN CHILDHOOD PHASE 2**

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**Introduction** An inflammatory link and common genetic factors have been discussed regarding the relation between BMI and asthma. We investigated the relationship between obesity and asthma symptoms, and effect modification by atopy and parental allergic disease in Phase 2 of the International Study of Asthma and Allergies in Childhood.

**Methods** In a population-based cross-sectional study, 10,600 children aged 8–12 from 22 centres worldwide were studied with standardized parental questionnaires. Height and weight were measured and age- and sex-specific international BMI cut-off-points were used to define obese children. Atopy was assessed with skin prick testing. Adjusted ORs for each centre were combined with meta-analysis random effects models.

**Results** Obesity was associated with wheeze in the past year in boys (adjusted OR 1.95 (95% CI 1.46 to 2.57) and girls 1.51 (1.02 to 2.24). In boys and girls, the effect was the same among atopic and non-atopic children. In boys, the OR was increased in children with reported parental allergic disease compared to those without (2.84 (1.93 to 4.18) and 1.26 (0.8 to 1.98), respectively). Adjustment for parental allergy did not change markedly the association between obesity and wheeze, neither in boys (change from 1.95 to 2.02) nor in girls (1.51 to 1.47).

**Conclusions** Effect modification but no confounding by parental allergy could indicate that parental allergy does not stand for a common preceding cause of BMI and wheeze (e.g., a common genetic pathway), but rather suggests that the influence of BMI may depend on the genetic/family background and also differ between boys and girls.

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**P2-322 LOW PREVALENCE OF HYPERTENSION IN YEMENITE TYPE 2 DIABETIC PATIENTS**

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**Introduction** Previous data suggest that the prevalence of hypertension (HTN) in Yemenite Jews is lower than in the general Israeli population. The aim of the present study was to compare the prevalence of HTN between type 2 diabetic patients of Yemenite (Y) and non-Yemenite (NY) origin.

**Methods** Cross-sectional study in a Diabetes Clinic. Clinical and lifestyle information was collected including a food frequency questionnaire.

**Results** Sixty three Y and 120 NY diabetic patients were included in the study. The age and sex distributions were similar in the two groups. Patients in the Y group had lower mean weight and waist circumference (72.3 kg vs 85.0 kg and 95 cm vs 105 cm, respectively, p<0.001) and their mean HbA1c level was higher (7.7% vs 7.2%, p=0.002), however blood pressure levels were similar in both groups. In a multivariate logistic regression analysis, NY origin was independently associated with a higher prevalence of HTN (OR 3.0, 95% CI 1.5 to 6.3, p=0.0025). Patients in the Y group consumed less antihypertensive medications than those in the NY group (1.6 vs 2.5, p=0.002), however blood pressure levels were similar in both groups. In a multivariate logistic regression analysis, NY origin was independently associated with a higher prevalence of HTN (OR 3.0, 95% CI 1.5 to 6.3, p=0.0025). There were no significant differences between the two groups in physical activity, total calories consumed and the DASH score.

**Conclusion** In this study the prevalence of hypertension in Yemenite was significantly lower compared to non-Yemenite diabetic patients. Since no differences were found in lifestyle characteristics it is likely that other mechanisms are involved.

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**P2-323 WITHDRAWN**