The black dotted line: Controls without BP (r=0.69, p<0.0001). The solid line: Preterm AGA without BP (r=0.38, p=0.11), the red dotted: preterm AGA with BP (r=0.06, p=NS).

At 9 years, preterm AGA with BP (n=13) had lower length SDS (p=0.003), weight SDS (p=0.006) and head circumference SDS and a tendency to lower height catch-up (p=0.09) compared to preterm AGA without BP (n=18). Fasting levels of IGF-I, insulin and leptin were lower in all Pretermers with BP.

Preterms with SP (n=8) had a lower height catch-up (p=0.009) compared to those without SP (n=30).

Conclusion Children born preterm have an increased risk for SP and BP. These disorders are associated with reduced catch up in height.

**453 REPEAT COURSES OF ANTENATAL CORTICOSTEROIDS FOR PRETERM BIRTH AND RISK FOR METABOLIC SYNDROME IN YOUNG ADULTHOOD**

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**Background** Preterm birth is associated with later hypertension and diabetes. One explanation for this association could be that exposure to antenatal corticosteroids (ACS), especially if repeated, induce adverse long-term effects. There are no data on whether repeat courses of ACS are associated with health problems later in life. The aim of this study was to assess whether repeat courses of ACS correlate to metabolic syndrome later in life.

**Methods** In a population-based cohort we measured BMI, blood pressure, arterial stiffness, blood lipids and glucose tolerance in 58 subjects (36 boys, age 14 to 26 years) exposed to 2–9 weekly courses of antenatal betamethasone. Subjects exposed to a single course (n=25, 14 boys) and unexposed subjects (n=44, 25 boys) were included as comparison groups.

**Results** As compared to unexposed controls, subjects exposed to repeat courses of ACS did not differ in BMI (mean difference 0.6kg/m², p=0.5), mean systolic or diastolic blood pressure (mean diff 1mmHg, p=0.78–0.83), arterial stiffness assessed by pulse wave analysis (mean diff 0.1%, p=0.50), triglyceride (mean diff 0.1mmol/L), total cholesterol (mean diff 0mmol/L), LDL/HDL ratio (mean diff 0.1), Lipoprotein(a) (mean diff 61mg/L), ApolipoproteinB/ApolipoproteinA1 ratio (mean diff 0.01), (p=0.33–0.91) or glucose tolerance assessed by HOMA-index (mean diff 0, p=0.84). Subjects exposed to a single course of ACS did not differ from the other groups in any of the variables above.

**Conclusions** Repeat courses of ACS do not correlate to metabolic syndrome in young adulthood. This observation has clinical implications for the ongoing discussion about safety of antenatal steroids.

**454 HEPATIC GLYCOGENOSIS IN TYPE I DIABETES MELLITUS: REPORT OF TWO CASES AND REVIEW OF THE LITERATURE**

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**Aim** Hepatic glycosgenosis is an underrecognized cause of serum transaminase elevations in poorly controlled type I diabetes mellitus, which has a relatively benign course with appropriate treatment. Objective of this study is to describe the aetiology, clinical presenting symptoms and treatment options.

**Methods** A report of two adolescents with poor controlled diabetes mellitus, hepatomegaly and serum transaminase elevations and a literature review.