maternal factors were obtained from previous data. Blood pressure trajectory groups were derived from average BP measurements between mean ages 5 and 18 years using group based trajectory modeling (GBTM). Multiple logistic regressions were used to assess the association between age, sex, early life risk factors (birth weight, relative gain in length and weight in infancy and early childhood), maternal risk factors (maternal age, education and parity), socio-economic status, childhood and adolescent BP trajectories and adult BMI and EBP at age 23.

Results: Thirty six percent of participants had EBP of whom 63% were male ($p < 0,001$). The only association with maternal or early life factors was greater linear growth from birth to 2 years of age, which conferred a 19% increased risk (odds ratio 1.19, [1.01–1.41]). Females had a 77% lower risk of EBP (odds ratio 0.23 [95% confidence interval 0.16–0.34]) per SD. Participants within the highest systolic and diastolic BP trajectories (where BP was elevated early and remained elevated) were at significantly increased risk of EBP in early adulthood. For those in the highest systolic trajectory, this resulted in a four-fold increased risk (odds ratio 3.98, [1.82 - 8.71]), and for those in the highest diastolic trajectory, a five-fold increased risk (odds ratio 5.46, [1.23 - 24.23]).

Conclusions: Of the many factors considered in our study, BP trajectories in childhood and adolescence had the strongest effect on the presence of EBP at age 23. Several studies have confirmed that BP tracks into adulthood. Ours is the first study in Sub-Saharan Africa to show the same result in a varying genetic and socio-economic population. Our data suggest that one's life course is set relatively early in childhood and that interventions aimed at growth and nutrition in early childhood could help reduce risk for EBP in adulthood. In a country where the prevalence of adult hypertension is amongst the highest in the world, data such as ours are important in establishing whether changes in childhood and adolescence could affect outcomes in adulthood. If identification of individuals at risk could occur earlier, this could facilitate targeted interventions that might prevent adverse cardiovascular and renal outcomes associated with hypertension in adulthood.

SAT-330

MATERNAL AND NEONATAL SAFETY WITH THE USE OF MAGNESIUM SULFATE IN PREECLAMPSIA

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Introduction: Preeclampsia is a common complication of pregnancy. The use of magnesium sulfate (MS) to prevent eclampsia became widespread after the Magpie Trial, in which MS was administered to pregnant women for a period of 24 hours. This study is designed to evaluate the safety of MS when it is used for more than 24 hours.

Determine the incidence of adverse maternal reactions (AMR) associated with the administration of MS intravenous infusion for ≤ 24 hours compared to intravenous infusion for > 24 hours. - Determine neonatal outcomes in both groups.

Methods: This study was a prospective, observational study. Patients older than 18 years with a diagnosis of preeclampsia were included and divided into: GROUP A (infusion of SM ≤ 24 hs.), and GROUP B (infusion> 24 hs.). The duration of the infusion was subject to the discretion of the attending obstetrician. The authors did not participate in MS treatment decisions. AMR associated with the infusion of SM were recorded, along with data including magnesium levels, need for suspension of infusion and/or reduction of the dose due to AMR. Data related to secondary outcomes were collected, including: Apgar scores at minute 0 and minute 5, infant birth weight, presence of respiratory depression, admission to intensive care unit, hypotonia, and neonatal mortality.

Results: A total of 93 patients were included, 51 in group A and 42 in group B. There was an incidence of AMR of 39 % in A and 68% in B. The most frequent AMR was headache. The need to suspend / reduce infusion was higher in group B. No statistically significant differences were observed comparing both groups in neonatal variables.

Conclusions: We observed a higher incidence of AMR associated with the administration of MS in the group with the longest exposure time.

SAT-331

RENAL DENERVATION DOES NOT REDUCE BLOOD PRESSURE IN A RODENT MODEL OF POLYCYSTIC KIDNEY DISEASE

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Introduction: Hypertension is a common, early feature of polycystic kidney disease (PKD) that contributes to the development of cardiovascular disease, a leading cause of mortality in these patients. Effective control of hypertension is therefore essential. Clinical trials show that renal denervation (RDN) can reduce blood pressure in hypertensive patients with chronic kidney disease, however, the impact of RDN on PKD patients as a specific cohort has not been examined. RDN involves surgical destruction of both the sympathetic and sensory components of the renal nerve, but which is responsible for any clinically relevant effects is not clear. The aim of this study was to determine the effect of RDN on the progression of hypertension and renal disease in a rodent model of juvenile onset PKD, and the relative roles of the sympathetic and sensory components in any observed effect.

Methods: Lewis Polycystic Kidney (LPK) rats and Lewis control rats received total, sensory or sham RDN by periaxonal application of phenol, capsaicin or normal saline, respectively, at 6-weeks of age. Arterial pressure and heart rate (HR) were assessed using radiotelemetry to age 14-weeks. Renal function was assessed by measurement of 24hr water intake and urine output, urinalysis, serum biochemistry, and determination of creatinine clearance (CCR).

Results: Sensory RDN did not impact mean arterial pressure (MAP) in either strain while total RDN significantly reduced MAP in Lewis rats, most evident 4-weeks post-denervation (total vs. sham: 100±1 vs. 107±1 mmHg, $P<0.05$, n=34). Immunohistochemistry confirmed the effectiveness of RDN one-week post-surgery, however, there was significant re-innervation of both sympathetic and sensory fibres at 4-weeks post-surgery. Repeating total RDN at 10-weeks of age had no further impact on MAP at age 14 weeks in either strain, nor was there any treatment effect on kidney weight/body weight ratio. In the Lewis animals repeat RDN did not impact any indices of renal function (plasma creatinine or urea, 24hr water intake, urine output, urine protein: creatinine ratio (UPC) or CCR ($P > 0.05$), however in the LPK rats, the repeat RDN procedure was associated with an increase in plasma urea (27 ± 2 vs. 36 ± 2 mmol/L) and UPC (6 ± 2 vs. 15 ± 3), and decreased CCR (0.7 ± 0.2 vs. 0.3 ± 0.0 ml/min) compared with animals that had a single procedure ($P < 0.05$, n=11).

Conclusions: In our study neither total or selective sensory RDN reduced blood pressure in the LPK rodent model of PKD, suggesting that this procedure might not benefit patients suffering from comparable juvenile onset PKD. Total RDN, but not selective sensory ablation did, however, produce a small blood pressure reduction in Lewis control animals, supporting the critical role of renal sympathetic nerves in the long-term regulation of blood pressure under normotensive conditions. Despite regrowth of the nerves by 4 weeks RDN, repeating the procedure did not produce any additional effect on blood pressure in either strain, and worsened renal function in the PKD animals, indicating exposure to a repeated RDN surgical procedure is not supported.

SAT-332

THE EFFECT OF SPIRONOLACTONE IN A RAT MODEL OF ESTABLISHED HYPERTENSION.

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Introduction: Hypertension is one of the leading contributors to cardiovascular and renal disease. Spironolactone (SP) improves cardiac outcomes following injury, but its impact on hypertension-induced kidney fibrosis is uncertain. We aimed to investigate the impact of sustained hypertension with and without daily administration of spironolactone (SP) on the function and injury progression in both heart and kidney, in a transgenic rat model of hypertension.