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## **Prevalence of Polycystic Ovary Syndrome in Youth with Hypertensive Disorders**

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Polycystic ovary syndrome (PCOS) is one of the most common endocrine disorders among adolescent females, and it is associated with increased incidence of reproductive morbidities, hormone-dependent cancers, and metabolic and cardiovascular diseases. Despite these risks, PCOS in adolescents with hypertension (HTN) is underdiagnosed and understudied. Furthermore, the relationships between metabolic syndrome (MBS) or obesity and HTN in patients with PCOS have not been fully investigated. This is an ongoing prospective cross-sectional study being conducted to estimate the prevalence of PCOS, as well as associated comorbidities such as MBS and obesity, in adolescent females with HTN to increase awareness, promote early recognition and diagnosis, and enhance treatment to improve long-term outcomes. The target sample size is 40 participants based upon power and sample size calculations. Questionnaires are being administered to females aged 10–18 years with HTN of any cause and menarche for  $\geq 2$  years. We are recording data about demographics, past medical and menstrual history, fertility, and physical characteristics. We are measuring participants' waist circumference to estimate central adiposity per the International Diabetes Federation pediatric criteria. We are defining PCOS per the International Consortium Update on the Clinical Diagnostic Criteria of PCOS and MBS per the modified International Diabetes Federation criteria for pediatrics ages 10–15 and adults 16–18 years. We report counts with proportions and medians with interquartile ranges. Ten participants have been enrolled to date. The median systolic and diastolic blood pressures are 118 mmHg [113, 127] and 72 mmHg [66, 75]. The prevalence of PCOS is 11%, while 20% have MBS and 60% have obesity. This ongoing study is investigating PCOS prevalence in adolescent females with HTN and related risk factors. Enrollment is ongoing for a target sample size of 40 females. We will estimate the difference in our population's PCOS prevalence to that of the general population (11%) using the one-sample z-test of proportions as well as multivariable generalized linear models to estimate the association of the exposures with the outcome. This information has the potential to play a crucial role in educating physicians to consider a PCOS diagnosis in youth who present with HTN to allow for early diagnosis and prevention of the comorbidities associated with PCOS.

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