

and androgen) and clinical (e.g. delayed growth of breast bud) markers of puberty. Investigation of the mechanistic basis for these differences and their potential clinical consequences for girls with higher TBF deserves further study.

Pediatric Endocrinology

PEDIATRIC ENDOCRINOLOGY: GROWTH AND DEVELOPMENT

Self-Reported Feelings of Adult Patients With Differences of Sex Development (DSD) Regarding Genital Surgical Procedures

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Introduction: Differences of sexual development (DSD) define congenital diseases in which there is an atypical development of chromosomal, gonadal or anatomical sex, and may present varying degrees to genital atypia. There has been a discussion about the ideal time for surgical approach of atypical genitalia. S, because some non-governmental entities argue that the surgical approach should be delayed until adulthood after the patient's consent. **Objective/methodology:** To analyze the perspectives of adult DSD patients followed at a reference center in São Paulo on the surgical approach to correct atypical genitalia, through a semi-directed interview. **Results:** Thirty-seven adult patients with atypical genitalia were interviewed. Patients' mean age was 36 years. 70% of them had atypical genitalia diagnosed at birth. The patients' median age at the genitoplasty approach was 5 years (1 to 35 years). The median time interval between the beginning of the follow-up at the referral center and the surgical procedure was 1.9 years. When asked about the ideal period/age for genitoplasty, 72.2% considered the childhood, 16.7% cited when they're teenagers, 8.3% in adulthood and 2.8% did n't know. The discomfort reported by the patients related to atypical genitalia decreased after the surgical approach: from 3.8 to 2.9 $p < 0.01$ (on a scale of 1 "without discomfort" to 4 "extreme discomfort"). Insecurity about the appearance of genitalia and functionality during sexual intercourse influences negatively affective relationships. Four (10.8%) patients presented gender dysphoria, all of them with 46,XY DSD, three with partial gonadal dysgenesis (all approached surgically before being admitted to our referral service) and one with 5-alpha-reductase 2 deficiency. **Conclusion:** Most 46,XY DSD patients considered childhood the ideal time to correct their atypical genitalia. An early follow-up in a reference center and an adequate evaluation by a multidisciplinary may influence the positive results associated to the surgical approach of the atypical genitalia in childhood and the low prevalence of gender dysphoria in adulthood.

Reproductive Endocrinology

ANDROGENS ACROSS SEX, GENDER AND THE LIFESPAN

Peripubertal Anti-Mullerian Hormone Levels Are Associated With Hyperandrogenemia During Adolescence: The Avon Longitudinal Study of Parents and Children

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Polycystic ovary syndrome (PCOS) is among the most common endocrine disorders in women and is associated with negative reproductive and metabolic outcomes including subfertility, pregnancy complications, metabolic syndrome, and type 2 diabetes. The diagnosis of PCOS cannot be made until reproductive maturity, when the diagnostic criteria of hyperandrogenemia and oligomenorrhea develop. However, studies have described early metabolic and reproductive characteristics of the disorder in girls at increased risk, suggesting the pathogenesis starts much earlier. Indeed, studies in animal models suggest that exposure to excessive androgen or anti-Mullerian hormone (AMH) levels during critical developmental periods can program the offspring to develop the metabolic and reproductive features of PCOS during reproductive maturity.

We investigated early maternal or peripubertal factors associated with hyperandrogenemia during adolescence using data from the Avon Longitudinal Study of Parents and Children (ALSPAC), a United Kingdom birth cohort which has been ongoing since 1991. We performed linear regression to test for an association of testosterone levels at 15 years with peripubertal reproductive and metabolic phenotypes and with maternal measures of insulin sensitivity. Peripubertal phenotypes included AMH levels at 7, 9, and 11 years, and androstenedione, DHEAS, SHBG, IGF-1, fasting insulin, QUICKI, post-glucose insulin, leptin and adiponectin at age 8 years. Maternal phenotypes included fasting insulin levels and QUICKI at a post-partum visit. Unadjusted and adjusted analyses including the covariates pubertal stage, ethnicity, maternal and daughter BMI were performed.

Testosterone levels at age 15 years were significantly positively associated with AMH levels at ages 7(N=299), 9(N=295), and 11(N=300) years in both the adjusted and unadjusted models (Age 7 unadjusted $P < 0.0001$, adjusted $P = 0.01$; Age 9 unadjusted $P < 0.0001$, adjusted $P = 0.003$; Age 11 unadjusted $P < 0.0001$, adjusted $P = 0.02$). Testosterone at age 15 years was also associated with DHEAS at age 8 years using the unadjusted ($P < 0.0001$) but not the adjusted model. There was no significant association between any of the other peripubertal metabolic and reproductive phenotypes or the maternal metabolic phenotypes of fasting insulin and QUICKI with testosterone level at age 15 years.

We have found a persistent and significant positive association of AMH levels at pre- or peri-pubertal ages with testosterone levels during adolescence, a developmental stage at which a clinical diagnosis of PCOS can be made. It