

obesity (1.7 [95% CI: 1.5, 1.9], $p < 0.0001$) and PCOS diagnoses (1.9 [95% CI: 1.3, 2.8], $p = 0.0006$), as compared to controls. There was no significant difference in the odds of having a diagnosis of hypertension, dysglycemia or liver dysfunction in transgender youth compared to controls. **Conclusions:** This large, geographically diverse cohort of transgender youth had a higher odds of being diagnosed with dyslipidemia and metabolic syndrome (both sexes), as well as elevated BMI or PCOS among those with a female sex listed. Future investigations will include analyses based on GAHT prescriptions and will further inform risk analysis and monitoring guidelines in this population.

Reproductive Endocrinology TRANSGENDER, DSD, AND TURNER SYNDROME

Patient and Parent Reported Psychosocial Concerns in Children and Adolescents With Turner Syndrome

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Background: Pediatric patients with Turner syndrome (TS) are reported to have a higher incidence of anxiety, depression and social isolation but there is minimal data on self-reported measures. **Methods:** We utilized the validated PROMIS (Patient Reported Outcomes Measurement Information System) question bank to develop 4-question short forms to assess patient and parent self-reported scores in the domains of depression, anxiety, and peer relationships in our TS cohort. Completed PROMIS short forms from TS patients seen in the multidisciplinary TS clinic between 1/1/2019 and 6/1/2020 were retrospectively analyzed. Clinical data were also abstracted from medical records and correlated with the measures of depression, anxiety, and peer relationships. Descriptive analyses of the T-scores were completed using a non-parametric Wilcoxon rank-sum test and the dyad results were analyzed for agreement between parent and patient reporting. **Results:** Data from 26 patients (mean age 13y, range 4.6-20.6y) were included in the analysis: 3.9% were clinically referred for depression/anxiety after psychology assessment, 15% had developmental delays and 15% had an individualized education plan. Nearly 77% had short stature (<5%ile), 58% had received growth hormone and 54% were on estrogen therapy. Median scores were not statistically different from population norms for patient (N=22) or parent (N=25) reports in the 3 domains and did not vary by age, estrogen supplementation or stature. Internal reliability of the questionnaires measured by overall Cronbach alpha for each domain were acceptable (0.73-0.93). While parent and patient reported anxiety scores were correlated ($R = .452$, $p = .040$), the depression and peer relationship scores were not correlated. Parent-reported peer relationship scores were negatively correlated with patient-reported anxiety ($R = -0.46$, $p = 0.04$) and parent reported anxiety ($R = -0.43$, $p = 0.04$) scores. Parent perceived depression and anxiety measures were also correlated ($R = 0.77$, $p < 0.001$) as were patient reported scores in these domains ($R = 0.6$, $p = 0.003$).

Conclusions: In contrast to existing literature in TS indicating a higher incidence of psychosocial concerns, the patient and parent self-reported scores on depression, anxiety and peer relationship were not statistically different from the population normative data, and parent and patient perceived scores were not correlated in all domains. While the small number of patients in this pilot study may be insufficiently powered to detect a small difference in scores in these domains, the data underscores the need to develop a TS-specific validated psychosocial questionnaire that more adequately assesses the psychosocial concerns in this population.

Reproductive Endocrinology TRANSGENDER, DSD, AND TURNER SYNDROME

The Population Prevalence, Thyroid Cancer and Mortality Risk for Turner Syndrome in South Korea Based on National Health Insurance Service (NHIS) Data

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Background: In the present study, we estimated the population prevalence, cancer and mortality risk for Turner syndrome (TS) using data from National Health Insurance Service (NHIS) and Rare Diseases Registry (RDR). **Methods:** We collected data on subjects with TS who were registered in the RDR between 2012 and 2017. To estimate cancer and mortality risk of TS, the data of TS subjects were compared with and 1:5 age and sex matched controls. **Results:** In 2017, 2054 individuals with TS were identified out of the total population of 26,249,201 South Korean females and the prevalence was 7.83 per 100,000 persons. In 2017, the distributions of TS prevalence across 10 year old age groups showed 11.44 per 100,000 persons in the group under the age of 10 years, 22.43 per 100,000 persons in teenagers, 18.40 per 100,000 persons in twentieth, 10.24 per 100,000 persons in thirtieth, 4.05 per 100,000 persons in fortieth and 0.39 per 100,000 persons after fiftieth. During 5.3 years, the cancer risk in patients with TS was higher than that of age matched controls [hazard ratio (HR) = 1.813, 95% CI 1.009-3.257]. When cancer is categorized by each organs, thyroid cancer risk in patients with TS was significantly higher than that of age matched controls [hazard ratio (HR) = 2.697, 95% CI 1.025-7.097]. The all cause of mortality risk of TS was higher than that of age matched controls [hazard ratio (HR) = 3.421, 95% CI 1.623-7.212]. **Conclusions:** In South Korea, the TS population prevalence was 7.83 per 100,000 persons in 2017. The subjects with TS have higher thyroid cancer and mortality risk than healthy controls. Key words: Prevalence, Turner syndrome, thyroid cancer risk, mortality risk.