Anthropometric Findings from Birth to Adulthood and Their Relation with Karyotype Distribution in Turkish Girls with Turner Syndrome

OBJECTIVES

The study aims to evaluate anthropometric features of girls with Turner syndrome (TS) at birth and presentation and effect of karyotype.

METHODS

Data of 842 TS patients, with an age of diagnosis ranging from birth to 18 years followed-up between 1984 and 2014, from 35 different centers were collected. Of those 122 girls who received growth hormone, estrogen or oxandrolone were excluded and 720 girls were included in the study.

RESULTS

In this cohort prterm birth frequency was 8.8%. The frequency of SGA birth was 4.2% (2/48) in preterm and 36% (174/483) in term neonates (p=0.000). Mean birth length was 1.3 cm shorter and mean birth weight was 0.36 kg lower than that of normal population. The mean presentation age was 10.1±4.4 years (range from 0 to 18 years). Mean height, weight and body mass index (BMI) standard deviation scores (SDS) were -3.1±1.7, -1.4±1.5 and 0.4±1.7, respectively, at presentation. There was no karyotype association with respect to birth length and weight or height at presentation. Patients with isochromosome Xq were significantly heavier than other karyotype groups (p=0.007).

CONCLUSIONS

Mid-parental height and age at presentation were the only parameters that were associated with height of children with TS. The frequency of SGA birth was found higher in preterm than term neonates whilst the mechanism could not be clarified. We have found no effect of karyotype on height of girls with TS, while weight was heavier in 46,X,i(Xq) and 45,X/46,X,i(Xq) karyotype groups.

References