

School performance of girls with Turner syndrome: A transcultural assessment

Prof Jan Lebl¹, MD Judith Stoklasova¹, Prof Rasha Tarif Hamza³, Assoc Prof Marta Snajderova¹, Assoc Prof Jirina Zapletalova²

¹Department Of Pediatrics, Charles University In Prague, 2nd Faculty Of Medicine, Prague, Czech Republic, ²Department of Pediatrics, Palacky University, Faculty of Medicine, Olomouc, Czech Republic, ³Department of Pediatrics, Ain Shams University, Cairo, Egypt

Free Paper 10, November 11, 2017, 2:15 PM - 3:15 PM

Objectives

Specific cognitive phenotype in Turner syndrome (TS) may cause selective learning difficulties. We analysed real-life school performance of TS girls in primary school.

Subjects and methods

Forty-four Czech and 50 Egyptian TS girls (median age 13.5) attending a public primary school participated. Their karyotypes were 45,X (43), 46,XiXq (11), 45,X/46,XX (17), 45,X/47,XXX (2), 45,X/46,XiXq (7), 45,X/46,XdelX (6), 45,X/46,XrX (3), and 45,X/46,XY (5).

Czech participants retrospectively collected school testimonials from classes 1-9 of the TS girl and her two sisters and/or age-matched female schoolmates. In Egypt, only recent school testimonials were evaluated. The school results were converted to a 5-grade scale, (1-excellent; 5-unsatisfactory).

Results

Longitudinal data revealed similar performance in TS girls and their sisters/peers during the first two classes. In classes 3 to 5, TS girls performed slightly worse (mean grade 1.61) than controls (mean grade 1.49) in principal teaching subjects (maths, native language and 1st foreign language; $p=0.055$). In classes 6 to 9, TS girls performed slightly worse in maths only (class 6-7, mean grade 2.21 vs. 1.94, $p=0.054$; class 8-9, mean grade 2.41 vs. 2.08, $p=0.057$).

In the cross-sectional study in Egypt, TS girls' results were similar to their sisters and peers in all subjects except maths (TS: mean grade 3.58; controls: 3.19; $p=0.014$). In pooled results from three principal teaching subjects, TS girls performed just slightly worse than controls (3.11 vs. 2.92; $p=0.043$).

Conclusion

The differences in primary school results between TS girls and unaffected controls are minor and do not burden their general educational outcome.