

Gross and Fine Motor Development in 47,XXY and 47,XYY Males

Males with sex-chromosome anomalies come to the clinician's attention because of their tall stature, as seen in those with Klinefelter syndrome, gynecomastia, and hypogonadism. In an ongoing study to define the natural history of children with sex-chromosome abnormalities, 14 boys with XXY and four with XYY were compared with matched controls.

Neuromuscular deficits, such as motor awkwardness and slow movement, were described in early childhood and continue to be present in the school-age boys. XXY boys have significantly lower mean scores for limb coordination, speed, dexterity, and gross motor activity than the matched controls. School intervention for reading deficiency had occurred in 15 of the 18 boys with aneuploidy in contrast with none of the 14 controls. In addition, auditory processing deficits and dyslexia were believed to play a greater role in decreased school performance than would have been expected. Hypermobility of the finger joints

and poor grasp seemed to hinder writing skills.

Findings from this study suggest that mild to moderate dysfunction in sensory motor integration occurs frequently in boys with sex-chromosome aneuploidy and is likely to be an additional factor that influences classroom performance.

Salbenblatt JA, Meyers DC, Bender BG, et al. *Pediatrics* 1987; 80:240.

Editor's comment—As the authors point out, these mild changes found in males with sex-chromosome aneuploidy can have a significant influence on both classroom performance and social integration of self-concept and adequate peer interaction. Clinicians must be aware of these problems and institute early intervention when they are recognized. Perhaps males with neuromuscular deficits such as those described should be screened by buccal smear determinations for the presence of Barr bodies and double quinacrine bodies. This could make an appropriate study.

Judith G. Hall, M.D.