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**A Cytogenetic Study of Children with Developmental Delay
Mental Retardation**

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ABSTRACT The presented study was carried out to identify the chromosomal abnormalities in children with mental retardation and associated anomalies, registered at Kasturba Hospital, Manipal and in and around clinics during 2005-2009. Four hundred and twenty children were subjected to clinical and G-banded cytogenetic evaluation. Of these, 245 children reported as autosomal trisomy and variants who were initially diagnosed for Down syndrome, 14 had structural abnormalities, who were mentally retarded with associated congenital anomalies. The rest were found to have normal chromosomal karyotypes although they were diagnosed with developmental delay and associated malformations. In conclusion, the study suggests that G-banded karyotyping is a routine clinical test for Mental retardation (MR) patients with or without congenital anomalies, albeit molecular karyotyping needs to be applied for detection of submicroscopic chromosome alterations.