

. Urinary Uric Acid and Creatinine ratio as Screening Test for Possible GAMT Deficiency.

Dr. Anil B. Jalan

Objective: We decided to determine normal urinary Uric acid / Creatinine ratios in mentally retarded children, who had normal Serum Uric acid levels. Once we develop the normal ranges for Indian children, this ratio can be used as a screening test for possible GAMT (Guanidinoacetate methyltransferase) deficiency.

Method : We screened 20 mentally retarded children with or without convulsions, above 1 year of age, with normal Serum Uric Acid. For this study we collected a morning urine sample and were analyzed for Urinary Uric Acid and Creatinine and the result were converted into mMol / L by standard conversion factor.

Results : Total 20 children studied 13 were males and 7 females. The mean and SD of Uric acid / Creatinine Ratio (mol / mol) for males was 0.634 – 0.268 and for Females 0.612 – 0.228.

Conclusion : Any child with neurological involvement and Urinary Uric Acid / Creatinine ratio of > 0.6 mol / mol should be evaluated for possible GAMT deficiency.