

## Evaluation Of Quality Of Life And Cognitive Profile In Children With Malignant Posterior Fossa Brain Tumors

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### **Purpose:**

The health-related quality of life (HRQoL) is an important endpoint in modern clinical practice with improved survival of pediatric posterior fossa malignant brain tumors. We attempt to see the effect of environmental and psycho-social milieu on QoL and cognitive functioning (CF) of Indian children in terms of QoL, getting back to school and daily social activities following treatment completion.

### **Materials and Methods:**

In a cross-sectional study, 47 children <18 years of age with Medulloblastoma or Anaplastic Ependymoma, were evaluated  $\geq 6$  months after completion of adjuvant therapy. All clinical and treatment details, educational status of child and family members, socioeconomic status, environmental factors affecting QoL were documented. Children underwent HR-QoL and CF evaluation using Pediatric quality of life Inventory (PedsQL) questionnaire.

### **Results:**

The median age of cohort at presentation was 7 years (1-18) and median duration of evaluation after adjuvant therapy was 16 months ( $\pm 26.64$ ). In 47 families, 72.34% had monthly income <20,000 INR and 76.60% mothers took formal education. As per PedsQL, QoL scores were above median values. 27 children had below average IQ. Young age at presentation ( $p=0.020$ ), Maternal education ( $p=0.032$ ), High socioeconomic status ( $p=0.001$ ) influenced IQ score.

### **Conclusion:**

Overall cognitive functioning scores of these children are good, but they are not representative of actual neuro-cognitive tasks-based performance or IQ scores. Children should remain under regular follow up with neurocognitive assessment and psychological counseling at regular intervals. Longitudinal evaluation with larger sample sizes will help modify existing treatment and formulate newer interventions for rehabilitation.