BACKGROUND: Medulloblastoma stands as the most prevalent malignant brain tumor among the pediatric population. Diagnosis, staging, and treatment protocols are well-established in high-income countries. However, in low- to middle-income countries, management practices often deviate and frequently prove inadequate, potentially impacting final outcomes significantly. In Costa Rica, a middle-income country, a study was conducted to document the prevailing management approaches for patients at the Hospital Nacional de Niños. METHODS: Data from 31 children under the age of 13, treated between 2009 and 2015, were retrospectively analyzed. All patients were included in the study. Demographic details, initial symptoms, staging procedures, surgical interventions, histologic subtypes, treatment modalities, and survival outcomes were scrutinized. Risk stratification relied on age, CSF analysis (when available), and the extent of resection as per the neurosurgeon’s assessment. Due to incomplete staging, all patients received high-risk chemo-radiotherapy protocol. RESULTS: The study identified 31 patients. Median age of 6.1 years (range, 0 -12), 51.1% being male. The most prevalent symptoms included headache, vomiting, and ataxia, manifesting in 93% of cases. Histological subtype was unspecified in 45.2% of patients. High-risk status was assigned to 11 patients (35.5%), with 8 of them aged under 3 years, while 20 patients (64.3%) were categorized as low risk, yielding a 5-year overall survival (OS) of 27% and 80%, respectively. Complete resection achieved in 21 cases, resulting in a 5-year OS of 71.5%, compared to 25% for 4 patients with incomplete resection. The overall 5-year OS rate was 61.3%. CONCLUSIONS: This study underscores suboptimal practices in the diagnosis, staging, and management of medulloblastoma at the time of assessment. While outcomes for patients classified as standard are acceptable, they received intensified chemo/radiotherapy, potentially leading to heightened long-term adverse effects. Importantly, identified deficiencies have since been addressed. The impact of these interventions will be evaluated in future studies.