43- PEDIATRIC INTRA-MEDULLARY SPINAL CORD TUMORS AT CHILDREN'S CANCER HOSPITAL EGYPT; A SINGLE-CENTER 10-YEAR-EXPERIENCE

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AIM: To evaluate intramedullary spinal cord tumors in pediatric patients regarding their clinical and radiological findings, histopathological diagnoses, therapeutic modalities and survival outcome.

PATIENTS AND

METHODS: A total of 77 patients with intramedullary spinal tumors were diagnosed and treated at Children Cancer Hospital Egypt (CCHE-57357) between July 2007 and June 2017. Their medical records were reviewed for demographics, clinical, radiological and histopathological data, treatment received; chemotherapy, radiotherapy, surgical resection, as well as their treatment response, clinical events, and survival outcome.

RESULTS: The median age was 5.35 years (range: 0.53 – 17.46 years; male/female ratio: 0.88). Commonest types were astrocytoma (n = 36, 46.8%) and ependymoma (n = 21, 27.3%). Overall, 80.6% of astrocytomas and 76.2% of ependymomas were low-grade. There was no correlation between tumor volume at presentation and histopathologic diagnosis. Seventy-two patients underwent surgery (gross-total resection (GTR), 22.2%; subtotal resection, 40.3%; biopsy, 37.5%). Extent of resection correlated significantly with histopathology, with GTR being more achieved with ependymoma (P-value <0.001). Fifty patients (65%) received chemotherapy while 34 patients (44.2%) received radiotherapy. The 5-year overall survival rate was 74.5%; and event-free survival rate was 69%. Only histopathological type correlated significantly with survival; embryonal tumors were negative prognostic factor for survival (P-value <0.001) while ependymomas were positive predictors of outcome (P-value < 0.05). Survival didn't significantly differ with gender, age, nor extent of resection.

CONCLUSIONS: Most pediatric spinal cord intramedullary tumors are low-grade tumors. Spinal ependymomas are amenable for GTR with favorable outcome. Surgery remains the main treatment in intramedullary spinal tumors.