

Malignant sacrococcygeal germ cell tumors in children: a 30-year experience from a single institution

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ABSTRACT

Background. Our aim was to analyze treatment results and survival characteristics of our patients with malignant sacrococcygeal germ cell tumors.

Procedure. Patient files of children with malignant sacrococcygeal germ cell tumors, treated at our institution between 1979 and 2009, were searched. Patient characteristics, histopathological subtypes, extension of disease, alpha-fetoprotein (AFP) level at the time of diagnosis and relapse, extent of surgical resection, chemotherapy protocols, details of radiotherapy and survival characteristics were recorded.

Results. A total of 58 patients (M/F = 20/38) with malignant sacrococcygeal germ cell tumor was included in analysis. With a mean follow-up of 156 months (range, 26 days to 288.8 months) overall and event-free survival rates of the 58 patients were 50.9% and 43.8%, respectively. AFP status of the patients (37% in patients with <10,000 ng/ml, 68.9% in patients with ≥10,000 ng/ml), type of resection (total *vs* others), coccygeal resection, chemotherapy protocol (PEB *vs* others) and number of chemotherapy courses had an impact on event-free survival in univariate analysis. In multivariate analysis, AFP status had the greatest effect on prognosis.

Conclusions. Our treatment results are worse than those reported in the literature. Elevated AFP level at the time of diagnosis had a beneficial effect on prognosis, but year of diagnosis, tumor stage, presence of metastasis, tumor size and histopathological subtype had no impact on survival in patients with malignant sacrococcygeal germ cell tumors.

Key words: alpha-fetoprotein, chemotherapy, children, germ cell tumors, sacrococcygeal region.

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