Treatment Outcomes for Hepatoblastoma: 15-years-experience of a Single Institution – Sheikh Khalifa Medical City, Abu Dhabi, UAE

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July 14, 2023

Abstract

Background: Hepatoblastoma is the most common malignant liver tumor in children. Treatment protocols varies. In our center, we have adopted the Children's Oncology Group (COG) AHEP0731 protocol, in addition to some experimental regimens for relapsed solid tumors. Methods: We aimed to investigate the outcome of the current hepatoblastoma treatment protocol at our center. 15 patients were included between January 2008 and June 2023. A retrospective review was carried to review the clinical presentation, serum \(\alpha\)-fetoprotein (AFP) level at diagnosis, histological subtype, treatment, and outcomes. **Results:** 12 patients (80%) were symptomatic at time of diagnosis, with abdominal mass being the most common presenting complaint. Nine patients (60%) presented in stage 3 PRETEXT staging system. Epithelial histopathological subtype was predominant subtype. Thirteen patients have received preoperative chemotherapy, followed by surgical resection; only one patient underwent upfront surgical resection followed by chemotherapy. Preoperative chemotherapy consists of 2 to 4 cycles of Cisplatin, Fluorouracil, Vincristine and Doxorubicin (C5VD), followed by surgical resection. Four of them underwent neoadjuvent experimental chemotherapy utilizing agents such as Pazopanib, Pembrolizumab and Sorafenib. During follow-up, six patients died of progressive disease. The median survival time was 42 months (95% confidence interval: 18-42%). Five-year overall survival was 44.09% (95% confidence interval: 18-42%). Conclusions: The combination of surgery and chemotherapy for hepatoblastoma is an effective approach. Utilization of new-targeted therapies and relapsed solid tumors regimens may prolong life in patients who did not respond to standard therapy. Further studies are required to validate its usage on patients with advanced hepatoblastoma.

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