Case series

2017

Lee et al., retrospectively reviewed the medical records of 30 patients with High Grade Gliomas (HGGs) (16 glioblastomas, 7 anaplastic astrocytomas, and 7 other HGGs) between 2006 and 2015. Gross total resection or near total resection was possible in 11 patients. Front-line treatment after surgery was radiotherapy (RT) in 14 patients and chemotherapy in the remaining 16 patients including 3 patients less than 3 years of age. Eight of 12 patients who remained progression free and 5 of the remaining 18 patients who experienced progression during induction treatment underwent the first high-dose chemotherapy and autologous stem cell transplantation (HDCT/auto-SCT) with carboplatin + thiotepa + etoposide (CTE) regimen and 11 of them proceeded to the second HDCT/auto-SCT with cyclophosphamide + melphalan (CyM) regimen. One patient died from hepatic veno-occlusive disease (VOD) during the second HDCT/auto-SCT; otherwise, toxicities were manageable. Four patients in complete response (CR) and 3 of 7 patients in partial response (PR) or second PR at the first HDCT/auto-SCT remained event free: however, 2 patients with progressive tumor experienced progression again. The probabilities of 3-year overall survival (OS) after the first HDCT/auto-SCT in 11 patients in CR, PR, or second PR was 58.2% ± 16.9%. Tumor status at the first HDCT/auto-SCT was the only significant factor for outcome after HDCT/auto-SCT. There was no difference in survival between glioblastoma and other HGGs. This study suggests that the outcome of HGGs in children and adolescents after HDCT/auto-SCT is encouraging if the patient could achieve CR or PR before HDCT/auto-SCT [1)].

1)
Lee JW, Lim DH, Sung KW, Lee HJ, Yi ES, Yoo KH, Koo HH, Suh YL, Shin HJ. Tandem High-Dose Chemotherapy and Autologous Stem Cell Transplantation for High-Grade Gliomas in Children and Adolescents. J Korean Med Sci. 2017 Feb;32(2):195-203. doi: 10.3346/jkms.2017.32.2.195. PubMed PMID: 28049229.