P17.03. POST-OPERATIVE EXCLUSIVE CHEMOTHERAPY WITH PCV FOR ANAPLASTIC OLIGODENDROGLIOMA: A RETROSPECTIVE STUDY OF 35 CONFIRMED CASES

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INTRODUCTION: Anaplastic oligodendroglioma / oligoastrocytoma (AO / AOA) represent among primary brain tumors a distinct chemosensitive heterogeneous entity with variable prognosis. New insights in biology have shown the prognostic impact of molecular / genomic tests (1p/19q status and IDH1 mutation). For many decades, front line therapy remains surgery followed by radiotherapy. In two recently updated large phase III trials, patients with 1p/19q codeleted tumors and/or IDH1 mutation lived longer after radiotherapy and adjuvant chemotherapy with PCV (Procarbazine, CCNU, Vincristine). Some authors suggest also encouraging outcome with chemotherapy alone with PCV or temozolomide. PATIENTS AND METHODS:

We reviewed a series of 54 patients initially diagnosed with AO or AOA, consecutively treated in a single center and who received PCV first after initial surgery. Radiation was delayed until relapse or when primary chemotherapy failed. All cases were retrospectively reviewed by a second neuropathologist and reclassified according the 2007 WHO criteria as well 1p/19q codeletion and IDH1 mutation were assessed when possible. RESULTS: From 10/2000 to 10/2009, 35 patients (out of 54) have confirmed diagnosis of AO (n = 25) or AOA (n = 10) and were considered for this analysis. Nineteen out of the 30 tested tumors (63%) had 1p/19q codeletion and 27/35 were IDH1 mutated (by IHC). Follow up MRI were scheduled every 3 months. Sixty-seven% of patients were younger than 50 years, 88% had a resection and 100% had a PS 0 or 1. Median number of delivered cycles was 4 (1 to 6) with hematological toxicity being the main cause of early interruption. The median follow-up was 54,7 months [95% CI; 47,7-17,8]. Median PFS and OS were 51,9 months [36,7 to NR] and 89,5 months [61,1 to NR] respectively in all AO / AOA. In the codeleted subgroup, median PFS was not reached [47,2-NR] and OS was 89,5 months [69,5 - NR]. In the non codeleted, median PFS and OS were shorter (11,6 and 39 months). In the IDH1 mutated subgroup, OS and PFS were respectively 89,5 [68,1 to NR] and 51,9 [37,3 to NR] months respectively. For patients with the wild type IDH1, OS and PFS were lower: 32 [6,7 to NR] and 18,7 [2,9 to NR] months. As of February 2014, eleven patients (31%, 10 codeleted tumors, 8 IDH1 mutated) with no disease progression, after a median follow up of 63,3 months, have not yet received salvage radiotherapy. CONCLUSION: Our results produce additional data to support a personalized treatment strategy for AO / AOA based on molecular/genomic analysis. However, omission of adjuvant RT in order to reduce the risk of delayed neurocognitive dysfunctions could not be recommended and should be implemented in clinical trials.