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INN-29. BILATERAL PARIETAL LYMPHOMA LESIONS RESPONDED DIFFERENTLY TO HD-MTX AND RITUXIMAB/TEMOZOLOMIDE THERAPY

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**INNV-28. POTENTIAL EFFECTIVE CONSOLIDATION THERAPY WITH SINGLE AGENT IBRUTINIB FOR A CASE WITH PRIMARY CNS LYMPHOMA AFTER INITIAL HD-MTX AND RITUXIMAB INDUCTION THERAPY**

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**INTRODUCTION:** Primary CNS Lymphoma (PCNSL) is a rare and aggressive cancer that originates from lymphocytes and develops in the central nervous system. Standard induction therapy involves high-dose methotrexate (HD-MTX)-based chemotherapy, which achieves complete or partial re-sponse in most PCNSL patients. However, there is no standard consolidation therapy. We report one case in which ibrutinib, a Bruton's tyrosine kinase inhibitor, replaced low-dose WBRT as consolidation therapy after induction by HD-MTX and rituximab. Ibrutinib treatment yielded good tolerance and further resolution of small residue lymphoma.

**CASE REPORT:** The patient is a 77-year-old female who presented with slurred speech, right-sided weakness, and difficulty word-finding in early 2020. Brain MRI found multifocal lesions, and biopsy of the largest lesion near the left lateral ventricle revealed diffuse large B cell lymphoma. The patient began HD-MTX at 6 g/m<sup>2</sup> for the first cycle of induction therapy. She continued HD-MTX every two weeks, but dosage was reduced every cycle due to worsening renal function. Ultimately, MTX was discontinued after 6 cycles. Brain MRI showed significant response after HD-MTX except for small residue lymphoma at the biopsy area. 2<sup>nd</sup> line regimen rituximab and temozolomide was given to complete induction. Brain MRI was stable, but the small enhancing residue lymphoma at left peri-ventricle area was persistent after the induction therapy (uCR). Ibrutinib as consolidation therapy began after discussion with the patient. The patient tolerated 560 mg ibrutinib for 6 cycles initially, then switched to a reduced dose of 420 mg for cycles 7 and 8 due to neutropenia. Brain MRIs have been stable with resolution of the small lymphoma residue after 6 cycles of ibrutinib. The patient continues ibrutinib for the goal of one year of consolidation therapy. **DISCUSSION:** Our case highlights the potential of single-agent ibrutinib as consolidation therapy for PCNSL after HD-MTX and rituximab/temozolomide induction therapy.