

## **Abstract: PB3047**

### **Title: REAL-WORLD 7-YEAR SINGLE-CENTER EXPERIENCE IN THE MANAGEMENT OF PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMA**

**Abstract Type:** Publication Only

**Topic:** Aggressive Non-Hodgkin lymphoma - Clinical

#### **Background:**

Primary central nervous system lymphoma (PCNSL) is a rare extranodal lymphoma, with the vast majority of cases being diffuse large B cell lymphoma (DLBCL) by histopathology. The nature of the disease and its localization consequently determines clinical presentation, which leads to reduced mobility and poor general condition in many patients (pts) diagnosed with PCNSL. These pts are underrepresented in clinical trials, which may distort the impression of the prognosis of PCNSL pts in general.

#### **Aims:**

To present a real-world cohort of unselected PCNSL pts and their clinical and laboratory features, treatment and outcome.

#### **Methods:**

We conducted a single-center retrospective study presenting real-world data on PCNSL in the Clinic of Hematology, University Clinical Center of Serbia. Data from 26 pts diagnosed and treated from 2017 to 2023 were collected from medical records and analyzed by basic statistical methods.

Histology other than DLBCL was excluded from the study.

#### **Results:**

Two-thirds of pts were males (65%, 17pts). The median age at diagnosis was 61 years. 85% of pts presented with focal neurological deficit, 58% with signs of increased intracranial pressure, 31% with behavioral disorder, and 27% with seizures and ocular symptoms. Focal disease was present in 19 pts (73%), while 18 pts (69%) had deep brain structures involved. Memorial Sloan Kettering Cancer Center (MSKCC) score was 1 in 2 pts (8%), 2 in 7 pts (27%), and 3 in 17 pts (65%). Two-thirds (17 pts, 65%) presented with poor performance status (ECOG 3-4 or Karnofsky index  $\leq 50\%$ ). Most pts (22/24, 81%) exhibited a non-GCB immunohistochemistry pattern. In 3/25 pts (11%) venous thromboembolic event (VTE) (deep vein thrombosis [DVT] and/or pulmonary embolism [PE]) was confirmed.

The diagnosis was made after total tumor extirpation or maximal resection in 12 pts (46%). Almost all pts (24/26, 92%) were treated with high-dose methotrexate (HDMTX) based therapy, 20 pts (77%) with the addition of rituximab, while 2 pts (8%) received only corticosteroids. The induction phase was completed in 14 pts (58%). Overall response rate (ORR) after induction was 62.5% (complete response [CR] in 29.2% and partial response [PR] in 33.3% of 24 pts with known response data). Median progression-free survival (PFS) was 7.5 months (m) (range, 0-71), and median overall survival (OS) was 10 m (range, 2-72). Only 9 pts (35%) were alive at the last follow-up.

PFS was significantly prolonged in pts without VTE ( $P=0.047$ ), pts who experienced diagnostic total or maximal tumor resection ( $P=0.008$ ), those treated with addition of rituximab ( $P<0.001$ ), pts who

achieved response after induction treatment ( $P<0.001$ ) and received consolidative radiotherapy (RT) or autologous stem cell transplant (ASCT) ( $P<0.001$ ).

Total or maximal tumor resection ( $P=0.035$ ), addition of rituximab to HDMTX-based induction treatment ( $P<0.001$ ), response to induction treatment ( $P<0.001$ ), consolidative RT or ASCT ( $P<0.001$ ) showed statistically

significant positive impact on OS.

**Summary/Conclusion:**

A significant number of patients in real-world settings present with poor performance status and are ineligible for intensive treatment, leading to poor outcomes in general. In our cohort, survival was significantly affected by VTE, total/maximal tumor resection, addition of rituximab, achievement of CR/PR to induction treatment, and consolidation. Larger real-world databases are warranted for more reliable conclusions.

**Keywords:** CNS lymphoma, Real world data, Survival