**Patient**: W.F. (DOB 1978-10-10)  
**MRN**: 924635  
**Admission**: 2025-03-25 | **Discharge**: 2025-04-02  
**Physicians**: Dr. N. Chen (Neuro-Oncology), Dr. V. Patel (Neurology)

**DISCHARGE DIAGNOSIS**

Primary Central Nervous System Diffuse Large B-Cell Lymphoma (PCNSL)

**ONCOLOGICAL DIAGNOSIS**

* **Primary**: Primary CNS Diffuse Large B-Cell Lymphoma
* **Diagnosed**: January 12, 2025
* **Histology**:
  + Stereotactic brain biopsy (Jan 13, 2025): Diffuse proliferation of large atypical lymphoid cells
  + IHC: CD20+, CD79a+, BCL2+, BCL6+, MUM1+; CD3-, CD5-, CD10-, cyclin D1-, CD138-, ALK-1-; Ki-67: 80%
  + EBER negative
  + MYC expression in 30% of cells; double expressor (MYC+/BCL2+) without gene rearrangements
  + No MYD88 L265P mutation; confirmed monoclonal B-cell population
* **Risk Stratification**:
  + IELSG Score: 2 (Elevated LDH, Deep brain involvement)
  + MSKCC Prognostic Score: Class 1 (Age < 50 years, KPS ≥ 70)
* **Imaging**:
  + MRI Brain (Jan 10, 2025): Two enhancing lesions - right frontal (4.0 x 3.5 cm) and left thalamus (2.5 x 2.0 cm)
  + CT Chest/Abdomen/Pelvis (Jan 14, 2025): No systemic disease
  + PET/CT (Jan 15, 2025): Hypermetabolic brain lesions only (SUVmax 18.2 right frontal, 12.4 left thalamus)
  + Ophthalmologic exam: No ocular involvement
* **Additional Studies**:
  + CSF: Negative for malignant cells, protein 38 mg/dL, no monoclonal B-cells
  + Bone Marrow: No lymphoma involvement
  + HIV, Hepatitis B/C: Negative
  + Testicular US: Normal

**CURRENT TREATMENT**

**MATRIX Regimen – Cycle 3** (March 26-30, 2025):

* Rituximab 375 mg/m² IV on days 0 and 5 (Mar 26 and 31)
* Methotrexate 3.5 g/m² IV over 4 hours on day 1 (Mar 27)
* Cytarabine 2 g/m² IV q12h on days 2-3 (4 doses, Mar 28-29)
* Thiotepa 30 mg/m² IV on day 4 (Mar 30)
* G-CSF (lipegfilgrastim) 6 mg once on Apr 01

**Supportive Care**:

* Leucovorin rescue: 15 mg/m² IV q6h starting 24h post-MTX until level < 0.1 μmol/L
* IV hydration with sodium bicarbonate (urine pH > 7.0)

**TREATMENT HISTORY**

**First-Line Therapy**:

* Dexamethasone 16 mg IV daily for 5 days (Jan 12-16, 2025)
* MATRIX chemotherapy:
  + Cycle 1: February 01-05, 2025
  + Cycle 2: February 22-26, 2025 with stem cell mobilization
  + Cycle 3: Current admission (completed)

**Response Assessment** (After Cycle 2):

* MRI Brain (Mar 14, 2025): Right frontal lesion decreased to 2.1 x 1.7 cm (from 4.0 x 3.5 cm); left thalamic lesion decreased to 1.1 x 0.8 cm (from 2.5 x 2.0 cm); reduced edema
* Classification: Partial Response per IPCG criteria

**COMORBIDITIES**

* L4-L5 discectomy (2015) with residual chronic lower back pain
* Moderate obstructive sleep apnea, compliant with CPAP
* Former smoker (quit 2017, 10 pack-years)
* Nephrolithiasis (2019)
* Major depressive disorder (2018, controlled)
* Hypercholesterolemia
* Allergies: Sulfa drugs (rash), Latex (urticaria)

**HOSPITAL COURSE**

46-year-old male with PCNSL admitted for third cycle of MATRIX chemotherapy. Pre-chemotherapy workup showed adequate organ function. Patient received complete MATRIX regimen with appropriate supportive care. Methotrexate levels were monitored daily, with final level 0.08 μmol/L on April 1, allowing leucovorin discontinuation.

Patient remained neurologically stable with slight improvement in previously noted right pronator drift. No MRI was performed during this admission.

Expected toxicities included:

* Grade 4 neutropenia (ANC nadir 0.2 × 10^9/L)
* Grade 3 thrombocytopenia (platelet nadir 28 × 10^9/L, no bleeding)
* Grade 2 mucositis (managed with oral care protocol)
* Grade 1 nausea (controlled with antiemetics)

No platelet transfusions were required. By discharge, ANC recovered to 1.2 × 10^9/L, platelets increased to 56 × 10^9/L, and mucositis improved. Patient was afebrile for 48 hours, tolerating oral intake, and ambulatory.

Fourth and final MATRIX cycle scheduled in approximately 3 weeks, pending adequate hematological recovery. Comprehensive response assessment planned after cycle 4 to determine consolidation approach.

**DISCHARGE MEDICATIONS**

* Loperamide 2 mg PO PRN for diarrhea (max 8 mg/24h)
* Magic mouthwash 5-10 mL swish and spit Q4H PRN
* Acyclovir 400 mg PO BID
* Atovaquone 1500 mg PO daily with food (sulfa allergy)
* Pantoprazole 40 mg PO daily
* Atorvastatin 20 mg PO daily at bedtime
* Sertraline 100 mg PO daily
* Acetaminophen 650 mg PO Q6H PRN
* Zolpidem 5 mg PO QHS PRN

**FOLLOW-UP PLAN**

**Oncology**:

* Dr. N. Chen in 1 week (Apr 9, 2025)
* CBC with differential twice weekly
* Cycle 4 MATRIX scheduled Apr 15-20, 2025 (pending count recovery)

**Response Assessment**:

* MRI Brain after completion of Cycle 4

**Planned Post-Induction**:

* Complete response: Consider high-dose chemotherapy with autologous stem cell transplantation
* Partial response: Additional chemotherapy, possibly alternative regimens
* Neuropsychological testing after completion of induction

**Patient Education**:

* Temperature monitoring and symptoms requiring immediate attention
* Neutropenic precautions
* Medication adherence
* Nutritional guidance for chemotherapy-induced mucositis
* Fatigue management
* PICC line care

**KEY LAB VALUES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **Admission** | **Nadir/Peak** | **Discharge** | **Reference** |
| WBC | 4.8 | 0.6 (3/31) | 2.8 | 4.0-11.0 × 10^9/L |
| ANC | 3.1 | 0.2 (3/31) | 1.2 | 2.0-7.0 × 10^9/L |
| Hemoglobin | 10.5 | 9.6 (4/1) | 9.8 | 13.5-17.5 g/dL |
| Platelets | 132 | 28 (4/1) | 56 | 150-400 × 10^9/L |
| Creatinine | 0.9 | 1.2 (3/28) | 0.9 | 0.7-1.3 mg/dL |
| LDH | 265 | - | 248 | 135-225 U/L |
| MTX Level | - | 73.4 (3/27) | 0.08 (4/1) | <0.1 μmol/L |

**Electronically Signed**:  
Dr. N. Chen (Neuro-Oncology)  
Dr. V. Patel (Neurology)  
Date: 2025-04-02