**Patient:** Robert Klein (DOB: 1957-02-21)  
**Medical Record Number:** 512678  
**Date of Admission:** 2024-03-08  
**Date of Discharge:** 2024-03-13  
**Admitting Physician:** Dr. K. Sharma (Hematology/Oncology)  
**Consulting Physician:** Dr. M. Collins (Nephrology)

**Discharge Diagnosis: Hypercalcemia Secondary to Relapsed Diffuse Large B-Cell Lymphoma**

**1. Detailed Oncological Diagnosis:**

**Primary Diagnosis:** Diffuse Large B-Cell Lymphoma (DLBCL), NOS, GCB subtype, relapsed disease.  
**Date of Initial Diagnosis:** March 2022.  
**Date of Relapse:** March 2024 (current admission).

**Histology (Initial Diagnosis):**

* Right cervical lymph node excisional biopsy (Pathology Report #S22-4387) revealed diffuse infiltration by large, atypical lymphoid cells.
* Immunohistochemistry: Positive for CD20, CD10, BCL6, PAX5. Negative for MUM1. BCL2 positive (~60%). Ki-67 proliferation index approximately 85%. Consistent with DLBCL, GCB subtype.
* FISH studies: Negative for MYC, BCL2, and BCL6 rearrangements.

**Staging Workup (Initial Diagnosis):**

* PET/CT Scan (March 15, 2022):
  + Findings: Intense FDG-avidity (SUVmax 22.8) in multiple lymph node stations above and below the diaphragm, including bilateral cervical (largest right cervical conglomerate measuring 6.2 x 4.8 cm), supraclavicular, mediastinal, and retroperitoneal regions. Moderate diffuse FDG uptake within the spleen (SUVmax 7.8). No suspicious osseous lesions.
  + Impression: FDG-avid lymphadenopathy consistent with widespread lymphoma. Splenic involvement likely.
* Bone Marrow Biopsy (March 18, 2022): Normocellular marrow with trilineage hematopoiesis. No morphological or immunophenotypic evidence of lymphoma involvement.
* Ann Arbor Stage: Stage IIIB (Multiple nodal regions above and below the diaphragm [Stage III], associated B symptoms (weight loss) [B]).
* International Prognostic Index (IPI): Score 2 (Low-Intermediate Risk) based on: Age > 60 (1 point), Ann Arbor Stage III (1 point), LDH Normal (0 points), ECOG Performance Status 1 (0 points), Extranodal Sites = 0 (spleen considered nodal for staging).

**Current Relapse Diagnosis:**

* CT-guided core needle biopsy of retroperitoneal mass (Pathology Report #S24-1259, March 9, 2024) confirmed relapsed DLBCL, GCB subtype.
* Immunohistochemistry: Positive for CD20, CD10, BCL6. Negative for MUM1. BCL2 positive (~75%). Ki-67 proliferation index approximately 90%.
* Complete molecular profile pending at discharge.

**2. Current Oncological Treatment:**

Management of Hypercalcemia:

* Aggressive IV hydration with normal saline (150 mL/hr)
* Calcitonin 4 IU/kg SC q12h for 4 doses (March 8-10, 2024)
* Zoledronic acid 4 mg IV (single dose administered on March 9, 2024)
* Prednisone 100 mg PO daily (for 5 days started March 9, 2024)

Planned Salvage Therapy:

* R-DHAP regimen (rituximab, dexamethasone, high-dose cytarabine, cisplatin)
* First cycle to begin March 18, 2024
* Goal is cytoreduction followed by evaluation for autologous stem cell transplantation

**3. History of Oncological Treatment:**

First-Line Therapy:

* R-CHOP regimen (rituximab, cyclophosphamide, doxorubicin, vincristine, prednisone)
* 6 cycles completed between March 2022 and August 2022
* Achieved complete remission documented by PET/CT in September 2022

**4. Comorbidities:**

* Hypertension (on lisinopril)
* Prostate Cancer (Gleason 3+3=6, diagnosed 2020, under active surveillance)
* Benign Prostatic Hyperplasia
* Allergies: none

**5. Physical Exam at Admission:**

**General:** 67-year-old male appearing fatigued with mild confusion and evidence of recent weight loss (approximately 5kg over 2 months per patient's wife).

**Vital Signs:** BP 142/86 mmHg, HR 92 bpm (regular), RR 18/min, Temp 37.0°C, SpO2 96% on room air, Pain Score 6/10 (lower back and hips).

**HEENT:** Normocephalic. PERRL. Conjunctivae pale. Dry mucous membranes.

**Neck:** Supple. No cervical lymphadenopathy (contrasts with initial 2022 presentation).

**Cardiovascular:** Regular rate and rhythm. Normal S1 and S2. No murmurs, rubs, or gallops. No peripheral edema.

**Respiratory:** Clear to auscultation bilaterally. No respiratory distress.

**Abdominal:** Mild distension. Diffuse mild tenderness, most pronounced in RUQ. Liver palpable 2cm below costal margin. Spleen not palpable. No masses.

**Musculoskeletal:** Tenderness over lumbar spine and bilateral iliac crests. Strength 5/5 in all extremities.

**Skin:** Warm and dry with poor turgor consistent with dehydration.

**Neurological:** Oriented to person only, confused about time and place. Cranial nerves intact. Motor strength preserved. Unsteady gait requiring assistance.

**ECOG Performance Status:** 2 (Ambulatory, capable of self-care, unable to work, up and about >50% of waking hours).

**6. Epicrisis:**

Mr. Robert Klein is a 67-year-old male with a history of Diffuse Large B-Cell Lymphoma (DLBCL), GCB subtype, who achieved complete remission following R-CHOP chemotherapy completed in August 2022. After approximately 18 months of remission, he presented with a 2-week history of progressive fatigue, confusion, constipation, decreased appetite, polydipsia, and bone pain.

Laboratory evaluation revealed severe hypercalcemia (corrected calcium 14.2 mg/dL), mild renal dysfunction (creatinine 1.2 mg/dL), and elevated LDH (360 U/L). PET-CT imaging revealed a 7.3 × 5.1 cm retroperitoneal mass, mediastinal lymphadenopathy, and suspicious liver lesions. A CT-guided biopsy of the retroperitoneal mass confirmed relapsed DLBCL, GCB subtype.

Management of hypercalcemia included aggressive IV hydration (normal saline at 150 mL/hr), calcitonin (4 IU/kg SC q12h for 4 doses), zoledronic acid (4 mg IV single dose), and prednisone (100 mg daily for 5 days). The patient's mental status improved within 24 hours as calcium levels decreased, with full resolution of confusion by March 10. By discharge, calcium had normalized to 9.4 mg/dL with corresponding improvement in all symptoms.

Nephrology consultation provided guidance on fluid management and renal protection strategies. Pain management was initially achieved with opioid analgesia and later transitioned to acetaminophen as hypercalcemia resolved.

A multidisciplinary tumor board on March 12 reviewed the case. Given the patient's relatively long disease-free interval (18 months), good pre-relapse performance status, and absence of high-risk features, the decision was made to proceed with R-DHAP salvage chemotherapy followed by evaluation for autologous stem cell transplantation.

Nutritional assessment revealed mild malnutrition, which improved with dietary interventions by discharge. Physical therapy evaluation resulted in a progressive mobility program, and by discharge, the patient was ambulatory with minimal assistance.

Discharge planning included coordination with the outpatient infusion center, scheduling of central venous access placement, and arrangement for follow-up within 48 hours for pre-chemotherapy evaluation. The patient received education on monitoring for tumor lysis syndrome and infectious complications.

By discharge on March 13, the patient was fully alert and oriented with normal calcium levels, pain adequately controlled with oral acetaminophen, and improved mobility. The first cycle of R-DHAP is scheduled to begin on March 18, 2024.

**7. Medication at Discharge:**

* Pantoprazole 20 mg PO daily
* Allopurinol 300 mg PO daily
* Acyclovir 400 mg PO BID
* Trimethoprim/Sulfamethoxazole 960 mg PO daily 3x/week (Mo/Wed/Fr)
* Lisinopril 10 mg PO daily (for hypertension)
* Tamsulosin 0.4 mg PO daily at bed time (for BPH)
* Acetaminophen 650 mg PO QID PRN pain

**8. Further Procedure / Follow-up:**

Oncology Follow-up:

* Follow up with Dr. K. Sharma on March 15, 2024 for pre-chemotherapy evaluation (repeat Hepatitis/HIV serology and TTE)
* First cycle of R-DHAP planned to begin March 18, 2024

Additional Procedures:

* Central venous access device placement scheduled for March 16, 2024

Additional Consultations:

* Urology follow-up for prostate cancer surveillance in 3 months (unchanged from regular schedule)

Patient education:

* Temperature monitoring twice daily; report fever >38.0°C
* Daily weight measurement recommended
* Hydration goal: 2-3 liters daily
* Signs requiring urgent attention: fever, unusual bleeding, confusion, persistent vomiting, decreased urination

**9. Lab Values (Excerpt):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **Admission (3/8/2024)** | **Discharge (3/13/2024)** | **Units** | **Reference Range** |
| Calcium (total) | 13.8 | 9.1 | mg/dL | 8.6-10.3 |
| Calcium (corrected) | 14.2 | 9.4 | mg/dL | 8.6-10.3 |
| Creatinine | 1.2 | 1.0 | mg/dL | 0.7-1.3 |
| BUN | 30 | 18 | mg/dL | 7-20 |
| WBC | 7.8 | 8.3 | x10^9/L | 4.0-11.0 |
| Hemoglobin | 11.2 | 11.5 | g/dL | 13.5-17.5 (M) |
| Platelets | 198 | 215 | x10^9/L | 150-400 |
| LDH | 360 | 340 | U/L | 135-225 |
| PSA | 43 | - | ng/mL | <4.0 |
| Bilirubin | 0.8 | 0.7 | mg/dl | 0.8-1.2 |
| Albumin | 3.4 | 3.5 | g/dl | 3.5-5.0 |

Electronically Signed By:  
Dr. K. Sharma (Hematology/Oncology)  
Date/Time: 2024-03-13 14:30

Dr. M. Collins (Nephrology)  
Date/Time: 2024-03-13 13:45