**Patient**: T.F. (DOB 1950-04-22)  
**MRN**: 891275  
**Admission**: 2025-04-01 | **Discharge**: 2025-04-08  
**Physicians**: Dr. M. Johnson (Hematology/Oncology), Dr. A. Williams (Hematology), Dr. T. Garcia (Nephrology)

**DISCHARGE DIAGNOSIS**

Autoimmune Hemolytic Anemia Secondary to Chronic Lymphocytic Leukemia

**ONCOLOGICAL DIAGNOSIS**

* **Primary**: Chronic Lymphocytic Leukemia (CLL)
* **Diagnosed**: November 2023
* **Histology**:
  + Peripheral blood and bone marrow: 65% infiltration of small, mature-appearing lymphocytes
  + Immunophenotype: CD5+, CD19+, CD20+ (dim), CD23+, CD200+, surface IgM/IgD+ (dim), kappa restricted
  + IHC: PAX5+, CD20+, CD5+, CD23+, LEF1+, kappa restricted, CD10-, cyclin D1-
* **Molecular**:
  + IGHV: Unmutated (unfavorable)
  + FISH: del(13q14) positive in 60% of cells; negative for del(11q), del(17p)/TP53, Trisomy 12
  + Cytogenetics: 46,XY with del(13)(q14q22) in 50% of metaphases
* **Staging/Risk**:
  + Binet Stage B (lymphocytosis + 3 areas of lymphoid involvement)
  + CLL-IPI: High Risk (6 points)
* **Imaging**: Cervical, axillary, and inguinal lymphadenopathy (largest 2.8 cm); mild splenomegaly (14.5 cm)
* **Initial Labs**: WBC 68.5 x 10^9/L (85% lymphocytes), ALC 58.2 x 10^9/L, Hgb 10.8 g/dL, Platelets 120 x 10^9/L, β2-microglobulin 3.6 mg/L, LDH 285 U/L
* **Presentation**: Fatigue, night sweats, weight loss, lymphadenopathy, mild splenomegaly, anemia

**CURRENT TREATMENT**

**AIHA Management**:

* Prednisone 1 mg/kg/day (80 mg daily) started April 01, 2025
* Rituximab 375 mg/m² IV (700 mg) administered April 03, 2025
* Folic acid 1 mg PO daily
* Transfusions: 2 units extended phenotype matched pRBCs on April 01, 2025

**TREATMENT HISTORY**

* Watch and wait: November - December 2023
* First-line therapy (January 2024): Acalabrutinib 100 mg PO BID
  + Good partial response with reduced lymphocytosis and lymphadenopathy
  + WBC decreased from 68.5 x 10^9/L to 22.6 x 10^9/L by March 2025
  + No significant toxicities until current AIHA

**COMORBIDITIES**

* Malignant Melanoma, left shoulder (2016, Clark III, Breslow 1.2mm, negative margins)
* Cholecystectomy (2010)
* Left Total Hip Arthroplasty (2021)
* CABG (2-vessel, 2017) for CAD
* CKD stage G2 (eGFR 72 mL/min/1.73m²)
* GERD with Barrett's Esophagus
* Hypothyroidism (post-RAI for Graves', 2008)
* Allergies: Penicillin (anaphylaxis), Sulfa drugs (rash), Latex (contact dermatitis)

**HOSPITAL COURSE**

74-year-old male with CLL on acalabrutinib presented with fatigue, dizziness, and jaundice for 5 days. Labs revealed severe anemia (Hgb 6.2 g/dL), elevated indirect bilirubin, elevated LDH, decreased haptoglobin, and positive direct antiglobulin test (DAT), consistent with warm autoimmune hemolytic anemia.

Acalabrutinib was continued despite AIHA, as discontinuation could potentially cause CLL flare-up. Evidence suggests BTK inhibitors may help control autoimmune complications associated with CLL, and hemolysis is more likely related to underlying CLL than to therapy.

Patient received high-dose corticosteroids (prednisone 1 mg/kg/day) and 2 units of matched pRBCs on admission. Pre-transfusion testing revealed a warm autoantibody making crossmatching difficult, requiring extended phenotype matching and close monitoring during transfusion. Patient was premedicated with acetaminophen and diphenhydramine prior to transfusion with no adverse reactions observed.

Rituximab was administered on day 3 as second-line therapy, chosen for its efficacy in CLL-associated AIHA and potential dual benefit of treating both the autoimmune process and underlying CLL. Patient tolerated rituximab infusion well with only mild infusion-related reaction consisting of low-grade fever and chills, managed with additional acetaminophen.

Hemolysis stabilized by day 4, with rising hemoglobin (7.6 g/dL), decreasing bilirubin, and decreasing reticulocyte count. Symptoms improved with resolution of dizziness and decreased fatigue. Renal function remained stable.

By discharge, hemoglobin had stabilized at 8.5 g/dL without additional transfusions, and markers of hemolysis were improving. Patient was clinically stable with significantly reduced fatigue.

**DISCHARGE MEDICATIONS**

**New Medications**:

* Prednisone 80 mg PO daily for 7 days, then taper by 10 mg every 7 days
* Folic acid 1 mg PO daily
* Valacyclovir 500mg PO BID (due to rituximab)
* Calcium carbonate 600 mg + Vitamin D 400 IU PO BID
* Famotidine 20 mg PO (10h before or 2h after Acalabrutinib)

**Continued Medications**:

* Acalabrutinib 100 mg PO BID
* Levothyroxine 88 mcg PO daily
* Metoprolol succinate 50 mg PO daily
* Atorvastatin 40 mg PO daily
* Aspirin 81 mg PO daily
* Acetaminophen 650 mg PO Q6H PRN pain

**Stopped Medications**:

* Pantoprazole (due to interaction with Acalabrutinib)

**FOLLOW-UP PLAN**

**Hematology/Oncology**:

* Dr. M. Johnson in 1 week (April 15, 2025)
* Weekly CBC, reticulocyte count, LDH, and bilirubin until AIHA resolves
* Flow cytometry to assess CLL disease burden in 2 weeks

**Recommendations**:

* Continue weekly rituximab infusions (375 mg/m²) for total of 4 doses (next: April 10, 2025)
* Follow prednisone taper schedule strictly
* Monitor blood glucose 3 times daily while on high-dose steroids
* Continue Acalabrutinib without interruption

**Patient Education**:

* Bleeding risks (Acalabrutinib + Aspirin + Prednisone): Report unusual bruising, black/bloody stool, vomiting blood, severe headache
* Infection risks (CLL/Treatments): Report fever >100.4°F, chills, new cough, SOB, dysuria
* Worsening anemia: Report increased fatigue, dizziness, SOB, pale/yellow skin

**KEY LAB VALUES**

|  |  |  |  |
| --- | --- | --- | --- |
| **Parameter** | **Admission** | **Discharge** | **Reference** |
| Hemoglobin | 6.2 | 8.5 | 13.5-17.5 g/dL |
| Hematocrit | 18.5 | 25.3 | 41-50% |
| WBC | 22.6 | 25.8 | 4.0-11.0 x10^9/L |
| Lymphocytes | 85 | 82 | 20-40% |
| ALC | 19.2 | 21.2 | 1.0-4.8 x10^9/L |
| Platelets | 110 | 125 | 150-400 x10^9/L |
| Reticulocytes | 12.5 | 8.2 | 0.5-2.5% |
| LDH | 845 | 480 | 135-225 U/L |
| Total Bilirubin | 4.8 | 2.6 | 0.2-1.2 mg/dL |
| Direct Bilirubin | 0.6 | 0.5 | 0.0-0.3 mg/dL |
| Haptoglobin | <10 | 22 | 30-200 mg/dL |
| DAT | Positive (IgG) | Positive (IgG) | Negative |

**Electronically Signed**:  
Dr. M. Johnson (Hematology/Oncology)  
Dr. A. Williams (Hematology)  
Dr. T. Garcia (Nephrology)  
Date: 2025-04-08