**Patient:** Julia Wilson (DOB 1982-09-13)  
**Medical Record Number:** 715943  
**Date of Admission:** 2025-03-10  
**Date of Discharge:** 2025-03-22  
**Admitting Physician:** Dr. A. Kim (Hematology/Oncology - Bone Marrow Transplant)  
**Consulting Physician:** Dr. M. Patel (Gastroenterology), Dr. T. Nguyen (Infectious Disease)

**Discharge Diagnosis: Acute Myeloid Leukemia with Grade III Acute Colonic Graft-versus-Host Disease**

**1. Detailed Diagnosis:**

Primary Diagnosis: Acute Myeloid Leukemia (AML) with FLT3-ITD and NPM1 Mutations  
Date of Initial Diagnosis: 2024-05-20  
ELN 2022 Risk Classification: Intermediate risk (FLT3-ITD)

Bone marrow:

* Histology: blast percentage: 72%
* Flow cytometry: Blasts positive for CD34, CD33, CD13, HLA-DR, CD117, myeloperoxidase
* Cytogenetics: Normal karyotype (46,XX[20])
* Molecular testing: FLT3-ITD positive (allelic ratio 0.65), NPM1 mutation positive, CEBPA wild-type

**2. Current Treatment:**

Current GVHD Presentation:

* Onset: Day +90 post-transplant
* Symptoms: Profuse watery diarrhea (volume >1500 mL/day), abdominal pain, nausea
* Grading: Overall grade III acute GVHD (stage 3 GI involvement)
* Colonoscopy findings (2025-03-12): Diffuse mucosal erythema, erosions, and ulcerations in sigmoid and descending colon
* Biopsy results: Apoptotic crypt destruction, lymphocytic infiltration consistent with acute GVHD
* Stool studies: Negative for C. difficile, CMV, other infectious pathogens

GVHD Management:

* Systemic corticosteroids: Methylprednisolone 2 mg/kg/day IV, started on 2025-03-11, tapered to 1.5 mg/kg/day and then to oral prednisolone before discharge
* Calcineurin inhibitor: Tacrolimus 1 mg PO BID, titrated to maintain trough level 8-12 ng/mL
* Topical corticosteroids: Budesonide 9 mg PO daily
* Anti-diarrheal agents: Loperamide 2 mg PO after each loose stool (max 16 mg/day)
* Nutritional support: Parenteral nutrition during hospitalization, transitioning to oral diet prior to discharge

Supportive Care:

* Fluid and electrolyte replacement as needed
* Growth factor support: None currently
* Pain management: Hydromorphone 0.5-1 mg IV q4h PRN during hospitalization, transitioned to oxycodone 5 mg PO q6h PRN prior to discharge

**3. History of Previous Treatment:**

AML Induction (2024-05 to 2024-06):

* Regimen: “7+3” + midostaurin
* Response: Morphologic complete remission (CR) achieved

AML Consolidation (2024-07 to 2024-09):

* First cycle: High-dose cytarabine (HiDAC) 3 g/m² q12h days 1, 3, 5 + midostaurin 50 mg PO BID
* Second cycle: HiDAC 3 g/m² q12h days 1, 3, 5 + midostaurin 50 mg PO BID

Bone Marrow Transplant (2024-12):

* Conditioning: Busulfan (target AUC 4800 μmol\*min/L) days -7 to -4, Cyclophosphamide 60 mg/kg days -3 to -2
* PBSCT from MUD 10/10 on d0 = 2024-12-05
* GVHD prophylaxis: Tacrolimus (started day -1) and methotrexate (15 mg/m² day +1, 10 mg/m² days +3, +6, +11)
* Complications during transplant admission: Mucositis (grade 3), neutropenic fever, sinusoidal obstruction syndrome (mild)
* Engraftment: Neutrophil engraftment day +14, platelet engraftment day +17
* Chimerism (day +30): 98% donor (peripheral blood)
* Chimerism (day +60): 99% donor (peripheral blood)

Previous GVHD Episodes:

* Skin GVHD (day +20): Grade I, resolved with topical steroids

**4. Comorbidities:**

* Hypothyroidism (diagnosed 2020, stable on levothyroxine)
* Hypertension (diagnosed 2022, controlled on medication)
* Anxiety disorder (exacerbated after cancer diagnosis)
* Chronic kidney disease stage G2 (eGFR 65 mL/min/1.73m²)
* Osteopenia (related to corticosteroid exposure and premature menopause)
* Iron overload (ferritin 1850 ng/mL, multiple prior transfusions)

Other Active Issues:

* CMV reactivation (day +45): Treated with valganciclovir, currently undetectable
* Grade I skin GVHD (resolved day +40)
* Chronic kidney disease stage G2 (baseline Cr 1.2 mg/dL, tacrolimus-associated)
* Peripheral neuropathy (residual from induction chemotherapy)

**5. Physical Exam at Admission:**

General: 42-year-old female appearing fatigued and in mild distress due to abdominal discomfort.

Vitals: Temperature 37.8°C, Heart Rate 98 bpm, Respiratory Rate 18/min, Blood Pressure 138/85 mmHg, Oxygen Saturation 98% on room air, Weight 58 kg (usual weight 65 kg), Height 168 cm, BMI 20.5 kg/m².

HEENT: Normocephalic, atraumatic. Mucous membranes dry. No oral ulcers or thrush.

Neck: Supple, no lymphadenopathy, no thyromegaly. Central venous catheter in right internal jugular vein.

Cardiovascular: Regular rate and rhythm, normal S1/S2, no murmurs, rubs, or gallops.

Respiratory: Clear to auscultation bilaterally, no wheezes, rales, or rhonchi.

Abdomen: Distended, diffuse tenderness particularly in lower quadrants, hyperactive bowel sounds. No hepatosplenomegaly. No rebound tenderness or guarding.

Extremities: No edema. No joint swelling.

Skin: No rash or jaundice. No petechiae or ecchymoses. Well-healed Hickman catheter site.

Neurological: Alert and oriented ×3. Cranial nerves II-XII intact. Motor strength 5/5 in all extremities. Decreased sensation to light touch in fingers and toes bilaterally (baseline neuropathy). Deep tendon reflexes 2+ throughout.

**6. Epicrisis:**

Ms. Wilson is a 42-year-old female with FLT3-ITD and NPM1-mutated AML who underwent 10/10 matched unrelated donor allogeneic stem cell transplantation on 2024-12-05. She is currently day +95 post-transplant and was admitted with a 5-day history of profuse watery diarrhea (>10 stools per day), diffuse abdominal pain, nausea, and fatigue. She reported a total of approximately 1500-2000 mL of liquid stool daily.

On admission, the patient was hemodynamically stable but showed signs of dehydration and mild metabolic acidosis due to significant GI losses. Initial laboratory evaluation revealed normal WBC count, mild anemia (hemoglobin 10.2 g/dL), normal platelet count, elevated BUN/creatinine ratio (BUN 28 mg/dL, Cr 1.3 mg/dL), and mild hypoalbuminemia (3.1 g/dL). Tacrolimus level was within therapeutic range at 9.5 ng/mL.

A comprehensive infectious disease workup was performed including stool studies for C. difficile toxin, bacterial culture, ova and parasites, viral studies (CMV, norovirus, adenovirus), and serum CMV PCR. All results returned negative. Abdominal CT showed diffuse colonic wall thickening with surrounding inflammatory changes, most prominent in the descending and sigmoid colon.

Colonoscopy was performed on 2025-03-12, which revealed diffuse mucosal erythema, erosions, and ulcerations in the sigmoid and descending colon. Biopsies were obtained and demonstrated apoptotic crypt destruction and lymphocytic infiltration, consistent with acute GVHD. The findings were most consistent with stage 3 colonic GVHD, and the patient was diagnosed with overall grade III acute GVHD.

Treatment was initiated with methylprednisolone 2 mg/kg/day IV in divided doses while maintaining tacrolimus at therapeutic levels. Oral budesonide was added for topical gut effect. The patient was initially kept NPO and started on parenteral nutrition due to severe diarrhea and abdominal pain. Aggressive fluid repletion and electrolyte correction were provided.

The patient showed excellent response to treatment with substantial reduction in stool volume and frequency. By day 8 of steroid therapy, diarrhea had markedly improved to only 2-3 loose stools daily. Abdominal pain resolved almost completely. The patient was successfully transitioned to a low-residue diet which was well-tolerated. Given the significant clinical improvement, IV methylprednisolone was converted to oral prednisolone prior to discharge, which was tolerated well.

Bone marrow evaluation and chimerism study (day +100) were performed slightly delayed on 2025-03-20. Morphology returned aspicular and molecular genetic results are outstanding and will be discussed with Dr Kim on 2025-03-24.

**7. Medication at Discharge:**

* Prednisolone 60 mg PO daily with taper plan:
  + 60 mg daily × 7 days
  + 50 mg daily × 7 days
  + 40 mg daily × 7 days
  + Then decrease by 5 mg weekly until reaching 10 mg daily
  + Further taper to be determined based on clinical response
* Tacrolimus 1 mg PO BID (target trough level 8-12 ng/mL)
* Budesonide 9 mg PO daily
* Loperamide 2 mg PO after each loose stool (max 16 mg/day)
* Pantoprazole 40 mg PO daily
* Valgancyclovir 900 mg PO daily
* Posaconazole 300 mg PO daily
* Atovaquone 1500 mg PO daily
* Levothyroxine 112 mcg PO daily
* Amlodipine 5 mg PO daily
* Calcium 600 mg/Vitamin D 800 IU PO BID
* Magnesium oxide 400 mg PO daily
* Oxycodone 5 mg PO every 6 hours PRN pain
* Ondansetron 8 mg PO every 8 hours PRN nausea
* Lorazepam 0.5 mg PO daily PRN anxiety

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

Bone Marrow Transplant Follow-up:

* Appointment with Dr. A. Kim on 2025-03-24 to review molecular genetics from bone marrow and chimerism results and GVHD assessment
* Next appointments: weekly for first 2 weeks, then biweekly if stable
* GVHD assessment at each visit
* Monitoring of prednisolone taper based on clinical response
* Laboratory monitoring: CBC, CMP, magnesium, tacrolimus level weekly

Infectious Disease Follow-up:

* Appointment with Dr. T. Nguyen in 3 weeks (2025-04-12)
* Monitoring for opportunistic infections while on triple immunosuppression
* CMV PCR monitoring weekly

Nutrition Support:

* Appointment with nutritionist in 1 week (2025-03-29)
* Low-residue diet instructions provided
* Caloric intake goal: 2000 kcal/day
* Protein intake goal: 1.5 g/kg/day
* Fluid intake goal: 3 L/day minimum

Vaccination Plan:

* All vaccinations on hold until immunosuppression reduced
* Reimmunization schedule to begin approximately 6 months post-transplant

Patient Education:

* GVHD symptoms requiring immediate attention
* Medication administration schedule and side effect monitoring
* Infection prevention strategies
* Dietary restrictions and recommendations
* Hydration requirements and monitoring
* Emergency contact information provided

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

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| --- | --- | --- | --- | --- |
| **Parameter** | **Admission (2025-03-10)** | **Discharge (2025-03-22)** | **Units** | **Reference Range** |
| WBC | 5.2 | 6.8 | ×10^9/L | 4.0-11.0 |
| ANC | 3.8 | 5.2 | ×10^9/L | 1.8-7.5 |
| Lymphocytes | 0.9 | 1.1 | ×10^9/L | 1.0-4.5 |
| Blasts | 0 | 0 | % | <1 |
| Hemoglobin | 10.2 | 9.8 | g/dL | 12.0-16.0 |
| Platelets | 145 | 168 | ×10^9/L | 150-400 |
| Sodium | 134 | 137 | mmol/L | 135-145 |
| Potassium | 3.2 | 3.9 | mmol/L | 3.5-5.0 |
| Chloride | 96 | 102 | mmol/L | 98-107 |
| Bicarbonate | 18 | 24 | mmol/L | 22-29 |
| BUN | 28 | 18 | mg/dL | 7-20 |
| Creatinine | 1.3 | 1.2 | mg/dL | 0.5-1.1 |
| Glucose | 142 | 135 | mg/dL | 70-99 |
| Calcium | 8.4 | 8.8 | mg/dL | 8.6-10.2 |
| Magnesium | 1.6 | 2.0 | mg/dL | 1.8-2.4 |
| Phosphorus | 2.8 | 3.2 | mg/dL | 2.5-4.5 |
| Albumin | 3.1 | 3.3 | g/dL | 3.5-5.0 |
| Total Protein | 5.8 | 6.2 | g/dL | 6.0-8.3 |
| ALT | 32 | 45 | U/L | 7-56 |
| AST | 28 | 38 | U/L | 10-40 |
| Alkaline Phosphatase | 110 | 98 | U/L | 35-105 |
| Total Bilirubin | 0.8 | 0.7 | mg/dL | 0.1-1.2 |
| Tacrolimus | 9.5 | 10.2 | ng/mL | 8.0-12.0 |
| CMV PCR | <137 | <137 | copies/mL | <137 |
| Ferritin | 1850 | - | ng/mL | 15-150 |
| C-reactive protein | 4.2 | 1.8 | mg/dL | <0.5 |

Electronically Signed By:  
Dr. A. Kim (Hematology/Oncology - Bone Marrow Transplant)  
Date/Time: 2025-03-22 15:30

Dr. M. Patel (Gastroenterology)  
Date/Time: 2025-03-22 14:15