# Hematopoietic and Lymphoid Neoplasm Case Scenarios

All cases are diagnosed in 2018.

## Case Scenario 1

Patient presented with enlarged cervical lymph nodes, particularly in the lower side of her neck and on left side. CT scan showed a large necrotic appearing lymph node in the left supraclavicular space measuring 3.2 X 4.1 X 5.1 cm. CT scan of chest, abdomen and pelvis showed lymphadenopathy extending into the lower neck, mediastinum and axilla, as well as involved nodes in the upper abdomen and mesentery region. No further abnormalities were identified.

Patients states no weight loss, fevers, or chills.

A left axillary lymph node was excised and a bone marrow biopsy was performed.

Pathology:

* Left axillary lymph node: Diffuse large B-cell lymphoma
* Bone marrow biopsy negative

The patient completed 6 cycles of R-CHOP therapy.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Lymphoma | | | | | | | | | |
| Primary Site | C778 | Clinical Grade | | | 8 | Tumor Size Summary | | | 999 |
| Histology | 9680 | Pathological Grade | | | 8 | Tumor Size Clinical | | | 999 |
| Behavior | 3 | Post Therapy Grade | | |  | Tumor Size Pathological | | | 999 |
| MP Rule | M2 |  | | |  |  | | |  |
| H Rule | PH21 |  | | |  |  | | |  |
| Diagnostic Confirmation Code 1 – Positive histology | | | | | | | | | |
| Stage Data items | | | | | | | | | |
| Clinical T | 88 | Pathological T | | | 88 | Post-Therapy T | | |  |
| cT Suffix |  | pT Suffix | | |  | ypT Suffix | | |  |
| Clinical N | 88 | Pathological N | | | 88 | Post-Therapy N | | |  |
| cN Suffix |  | pN Suffix | | |  | ypN Suffix | | |  |
| Clinical M | 88 | Pathological M | | | 88 | Post-Therapy M | | |  |
| Clinical Stage | 3 | Pathological Stage | | | 99 | Post-Therapy Stage | | |  |
|  | | | | | | |
| Summary Stage 2018 | | | 7 | | | |
| EOD Primary Tumor | | | 600 | | | |
| EOD Regional Nodes | | | 888 | | | |
| EOD Mets | | | 88 | | | |
|  | | | | | | |
| SSDIs | | | | | | |
| Schema Discriminator 1 | | | | blank | | |
| B Symptoms | | | | 0 | | |
| HIV Status | | | | 9 | | |
| NCCN International Prognostic Index (IPI) | | | | X9 | | |
|  | | | |  | | |
|  | | | |  | | |
| Surgical Diagnostic Staging Procedure | | | | 02 | | |
| Surgery | | | | | | |
| Surgical Procedure of Primary Site | | | | 00 | | |
| Scope of Regional Lymph Node Surgery | | | | 9 | | |
| Surgical Procedure Other Site | | | | 0 | | |
| Systemic Therapy | | | |
| Chemotherapy | | | | 03- Doxorubicin, Cyclophosphamide  Vincristine | | | |
| Hormone Therapy | | | | 01 Prednisone | | | |
| Immunotherapy | | | | 01 R-Rituximab | | | |
| Hematologic Transplant | | | | 00 | | | |
| Systemic/ Surgery Sequence | | | | 0 | | | |

# Case Scenario 2

A 72-year-old man with a history of diabetes mellitus, hypertension, and hypercholesterolemia presented with a complaint of enlarged lymph nodes in the submandibular, cervical, axillary regions. Imaging done on 1/11/18 showed prominent left axillary lymph nodes and multiple enlarge mediastinal lymph nodes (right paratracheal).

A CBC showed the patient was anemic hemoglobin Hgb 9.8 gm/dL, Absolute Lymphocytes 12,300, and Platelets 225,000.

Peripheral blood flow cytometry on 1/15/18 confirmed chronic lymphocytic leukemia (CLL)/small lymphocytic lymphoma (SLL): abnormal cell population comprising 63% of CD45 positive leukocytes, co-expressing CD5 and CD23 in CD19-positive B cells.

On 1/20/18 a (PET)/computed tomography (CT) scan demonstrated extensive diffuse lymphadenopathy within the neck, chest, abdomen, and pelvis. Maximum standardized uptake value (SUV max) was similar to low baseline activity within the vasculature of the neck and chest. In the abdomen and pelvis, however, there was mild to moderately hypermetabolic adenopathy measuring up to SUV of 4. The largest right neck nodes measured up to 2.3 x 3 cm and left neck nodes measured up to 2.3 x 1.5 cm. His right axillary lymphadenopathy measured up to 5.5 x 2.6 cm and on the left measured up to 4.8 x 3.4 cm. Lymph nodes on the right abdomen and pelvis measured up to 6.7 cm and seemed to have some mass effect with compression on the urinary bladder without symptoms.

He underwent a bone marrow biopsy on 02/03/18, which revealed hypercellular marrow (60%) with involvement by CLL (30%); flow cytometry showed CD38 and ZAP-70 positivity; fluorescence in situ hybridization (FISH) analysis showed 13q deletion/monosomy 13; IgVH was unmutated; karyotype was 46XY.

The patient responded well to a full course of Ibrutinib. No further treatment indicated at this time.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CLL/SLL | | | | | | | | | |
| Primary Site | C421 | Clinical Grade | | | 8 | Tumor Size Summary | | | 999 |
| Histology | 9823 | Pathological Grade | | | 8 | Tumor Size Clinical | | | 999 |
| Behavior | 3 | Post Therapy Grade | | |  | Tumor Size Pathological | | | 999 |
| MP Rule | M2 |  | | |  |  | | |  |
| H Rule | PH5 |  | | |  |  | | |  |
| Diagnostic Confirmation Code 3 – Positive histology PLUS Positive immunophenotyping AND/OR Positive genetic studies | | | | | | | | | |
| Stage Data items | | | | | | | | | |
| Clinical T | 88 | Pathological T | | | 88 | Post-Therapy T | | |  |
| cT Suffix |  | pT Suffix | | |  | ypT Suffix | | |  |
| Clinical N | 88 | Pathological N | | | 88 | Post-Therapy N | | |  |
| cN Suffix |  | pN Suffix | | |  | ypN Suffix | | |  |
| Clinical M | 88 | Pathological M | | | 88 | Post-Therapy M | | |  |
| Clinical Stage | 4 | Pathological Stage | | | 99 | Post-Therapy Stage | | |  |
|  | | | | | | |
| Summary Stage 2018 | | | 7 | | | |
| EOD Primary Tumor | | | 800 | | | |
| EOD Regional Nodes | | | 888 | | | |
| EOD Mets | | | 88 | | | |
| SSDIs | | | | | | |
| B Symptoms | | | | 9 | | |
| HIV Status | | | | 9 | | |
| NCCN International Prognostic Index (IPI) | | | | X9 | | |
| Adenopathy | | | | 1 | | |
| Organomegaly | | | | 9 | | |
| Anemia | | | | 1 | | |
| Lymphocytosis | | | | 1 | | |
| Thrombocytopenia | | | | 0 | | |
|  | | | |  | | |
| Surgical Diagnostic Staging Procedure | | | | 02 | | |
| Surgery | | | | | | |
| Surgical Procedure of Primary Site | | | | 98 | | |
| Scope of Regional Lymph Node Surgery | | | | 9 | | |
| Surgical Procedure Other Site | | | | 0 | | |
| Systemic Therapy | | | |
| Chemotherapy | | | | 02 | | | |
| Hormone Therapy | | | | 00 | | | |
| Immunotherapy | | | | 00 | | | |
| Hematologic Transplant | | | | 0 | | | |
| Systemic/ Surgery Sequence | | | | 0 | | | |

## Case Scenario 3

A 72 year old patient with a recent history of gastric carcinoma and lung carcinoma presents for additional work-up of his gastric carcinoma. A CT scan revealed lytic lesions on the sixth rib and right iliac wing suspicious for bone metastasis. A biopsy of the iliac wing lesion was sent for immunohistochemistry, colorimetric in situ hybridization, and flow cytometry immunophenotyping. The showed monotypic lambda light chain.

Notes from the medical oncologist:

* Hemoglobin is found to be low at 10.6g/dl
* MCV of 92
* Normal serum ferritin, vitamin B12, and folic acid levels
* Absolute neutrophil count is 1.3 x 103/ul and platelets 117 x 109/uL.
* Creatinine of 0.9 mg/dL
* Calcium of 9.2 mg/dL
* Serum albumin of 3.8 g/dL. A
* Serum protein electrophoresis is performed that demonstrates a monoclonal IgA protein of 1.5 g/dL.
* Beta-2 microglobulin of 7mg/L

Based on these results it is felt the patient is suffering from plasmacytoma with a possibility of multiple myeloma.

The patient was treated with Revlimid and dexamethasone.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Plasma Cell Myeloma | | | | | | | | | |
| Primary Site | C421 | Clinical Grade | | | 8 | Tumor Size Summary | | | 999 |
| Histology | 9732 | Pathological Grade | | | 8 | Tumor Size Clinical | | | 999 |
| Behavior | 3 | Post Therapy Grade | | |  | Tumor Size Pathological | | | 999 |
| MP Rule | M2 |  | | |  |  | | |  |
| H Rule | PH30 |  | | |  |  | | |  |
| Diagnostic Confirmation Code 8 – Clinical diagnosis | | | | | | | | | |
| Stage Data items | | | | | | | | | |
| Clinical T | 88 | Pathological T | | | 88 | Post-Therapy T | | |  |
| cT Suffix |  | pT Suffix | | |  | ypT Suffix | | |  |
| Clinical N | 88 | Pathological N | | | 88 | Post-Therapy N | | |  |
| cN Suffix |  | pN Suffix | | |  | ypN Suffix | | |  |
| Clinical M | 88 | Pathological M | | | 88 | Post-Therapy M | | |  |
| Clinical Stage | 88 | Pathological Stage | | | 88 | Post-Therapy Stage | | |  |
|  | | | | | | |
| Summary Stage 2018 | | | 7 | | | |
| EOD Primary Tumor | | | 700 | | | |
| EOD Regional Nodes | | | 888 | | | |
| EOD Mets | | | 88 | | | |
| SSDIs | | | | | | |
| Schema Discriminator 1 | | | | 0 | | |
| High Risk Cytogenetics | | | | 9 | | |
| Serum Albumin Pretreatment Level | | | | 1 | | |
| Serum Beta-2 Microglobulin Pretreatment Level | | | | 2 | | |
| LDH (Lactate Dehydrogenase) Pretreatment Level | | | | 9 | | |
|  | | | |  | | |
| Surgical Diagnostic Staging Procedure | | | | **01** | | |
| Surgery | | | | | | |
| Surgical Procedure of Primary Site | | | | 98 | | |
| Scope of Regional Lymph Node Surgery | | | | 9 | | |
| Surgical Procedure Other Site | | | | 0 | | |
| Systemic Therapy | | | |
| Chemotherapy | | | | 00 | | | |
| Hormone Therapy | | | | 01 | | | |
| Immunotherapy | | | | 01 | | | |
| Hematologic Transplant | | | | 00 | | | |
| Systemic/ Surgery Sequence | | | | 0 | | | |