

# Chronic Lymphocytic Leukemia

# Case

- 70 yo Caucasian male comes in for a routine check up. You discuss his well-managed HTN and long-standing lower back pain.
- When asked if he has any other complaints, he mentions a bump on his neck that has been bothering him for 3 months. He denies any infections in this time.
- On palpation, you feel a mobile, firm, and discrete mass that is not tender.
- You recommend a complete blood count with differential, as this presentation at his age is concerning to you.

# Work up shows....

- CBC with diff shows lymphocytosis

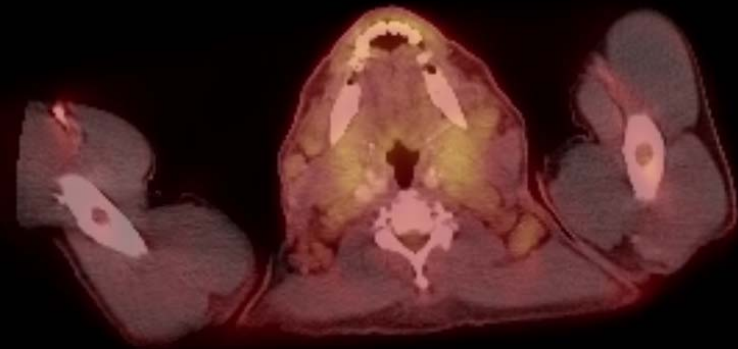
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|---------------|---------|---------------|
| WBC           | 64 K/uL | 4.0-10.5 K/uL |
| Lymphocytes   | 55 K/uL | 0.7-4.5 K/uL  |
| % Lymphocytes | 87%     | 14-46%        |

- Peripheral blood smear shows lymphocytosis

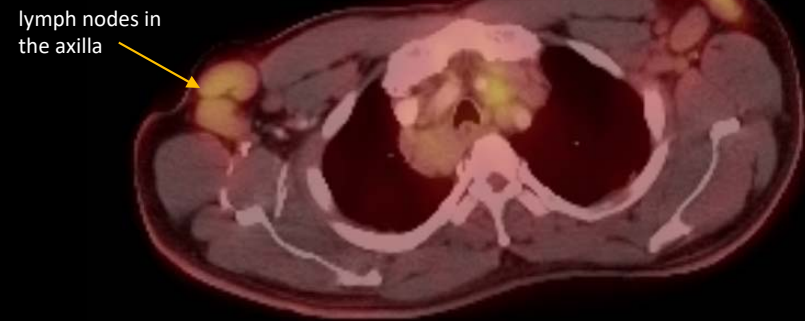
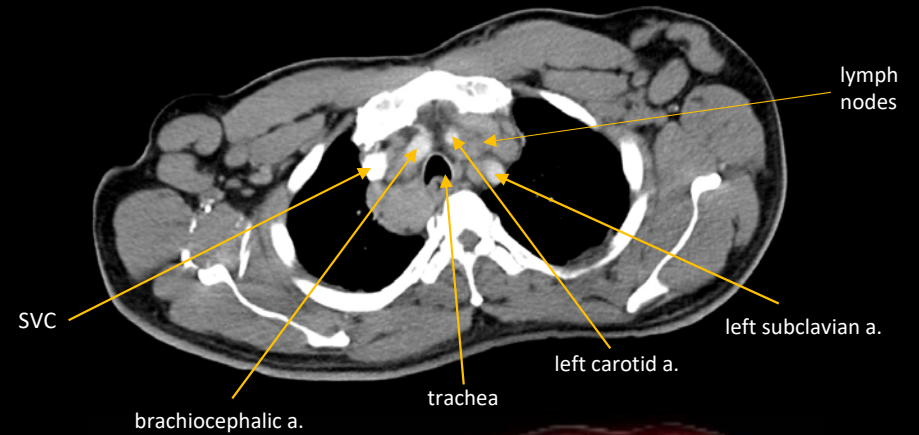
- “Foci of atypical appearing small lymphocytes are noted showing subtle ‘smudge cell-like’ changes”

- Immunophenotype shows monoclonal CD20+, CD23+, CD5+ B-cell population

- “Flow cytometry study was also performed and is consistent with B cell chronic lymphocytic leukemia”



“Innumerable enlarged and mildly FDG avid lymph nodes at all visualized cervical levels bilaterally. For example, a 2.9 x 2 cm left level IIA lymph node conglomerate which demonstrates a maximum SUV of 2.7.”



“Innumerable enlarged and mildly FDG avid lymph nodes throughout the mediastinum, hila, and axilla. The most metabolically active lymph node is in the aorticopulmonary window. The second metabolically active lymph node is in the right axilla.”

## PET/CT

# About CLL

- Mainly a disease of older adults
- Patients are often asymptomatic at diagnosis!
- Lymphocytosis must be sustained!
  - Infections like mono can cause lymphocytosis, but levels usually return to normal in a few weeks
- Increased incidence of autoimmune hemolytic anemia
- Rarely (2-9% of cases), CLL can undergo Richter's transformation into diffuse large B-cell lymphoma
  - Sudden deterioration
  - Median survival if this occurs is 5-8 months