

Clinical Pathology Laboratory



2-year old male
Golden retriever
with
peripheral lymphadenopathy

Laboratory Data Abnormalities

Hypercalcemia [19.4 mg/dL]

Ref. Range [9.7-12.1 mg/dL]

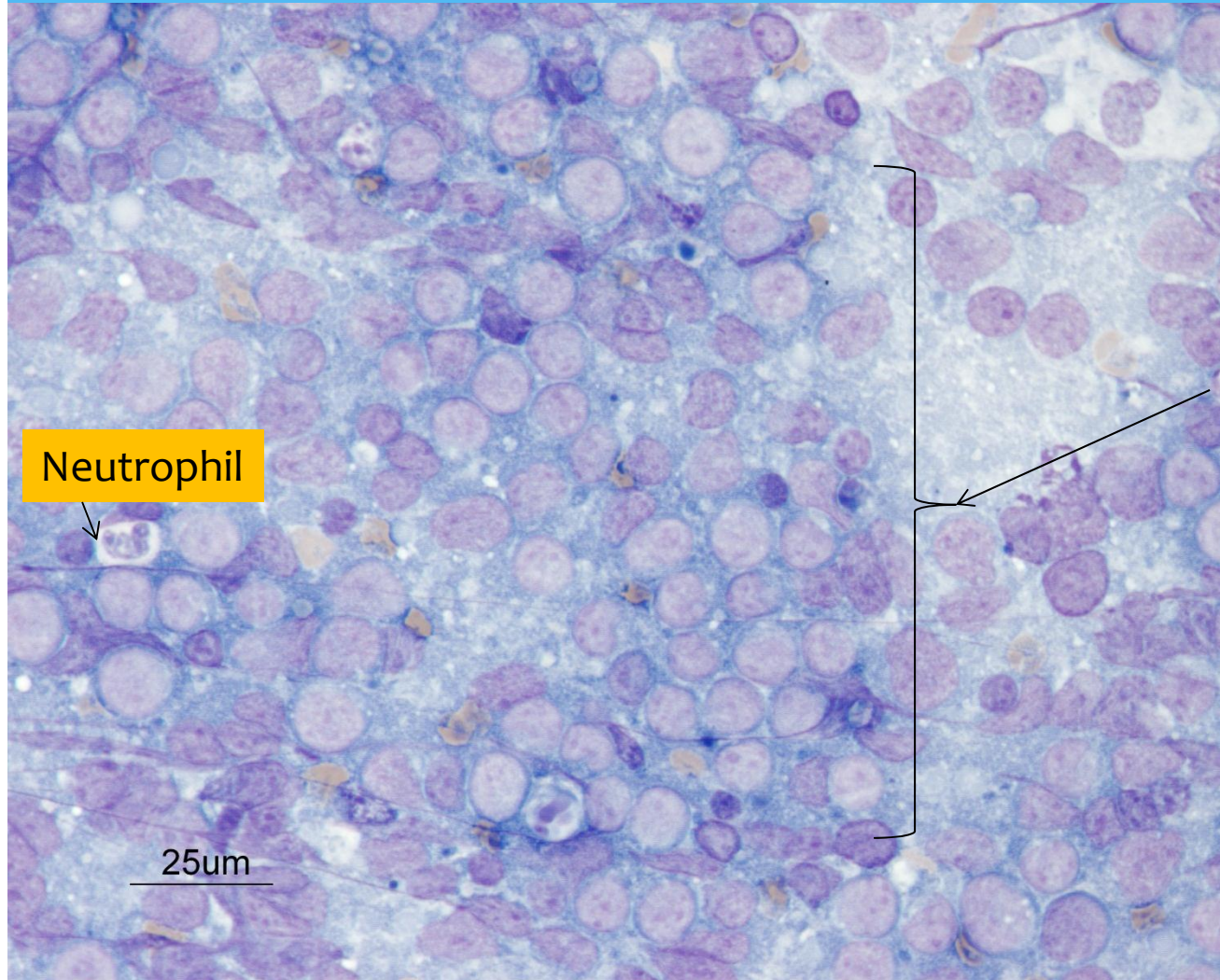
Thrombocytopenia 36,000/ μ L

Ref. Range [164,000-510,000/ μ L]

Lymphopenia 800/ μ L

Ref. Range [1,500-5,000/ μ L]

Aspirate of prescapular lymph node

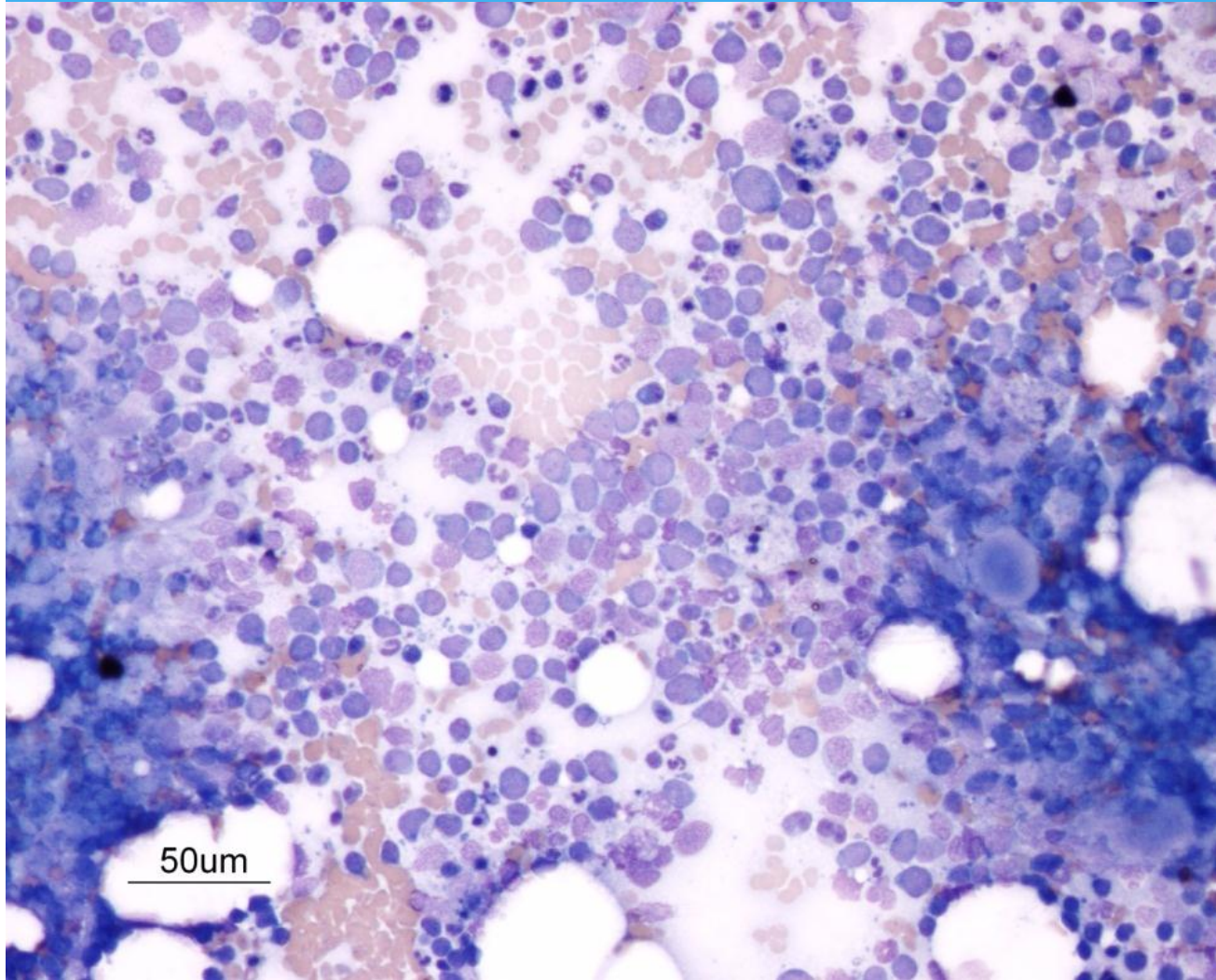


Neutrophil

25um

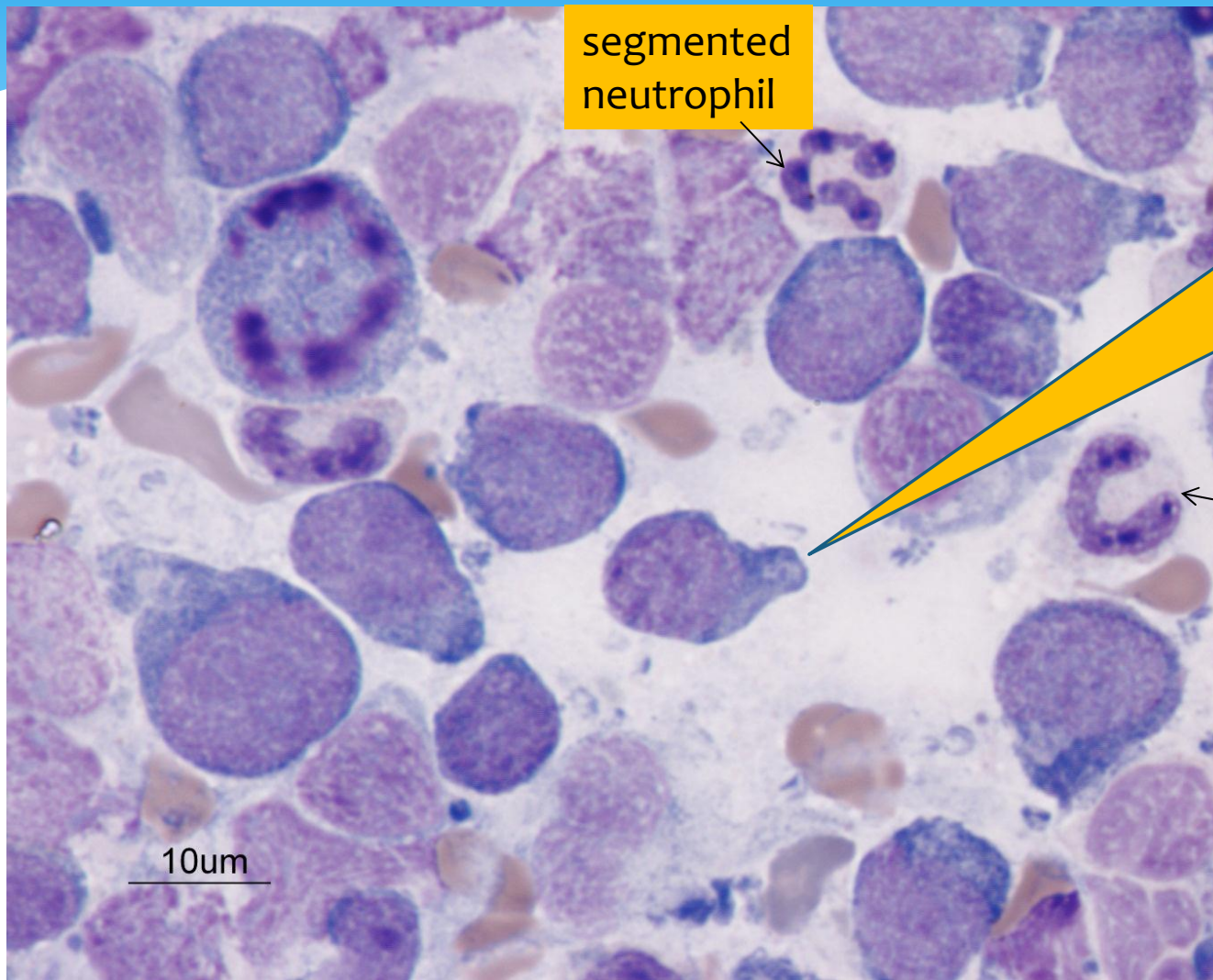
90% of cells
are immature
lymphocytes

Bone Marrow Aspirate



Immature
lymphocytes
replace normal
bone marrow

High power image of Bone Marrow



segmented
neutrophil

Hand Mirror
shape to
immature
lymphocytes

Band neutrophil

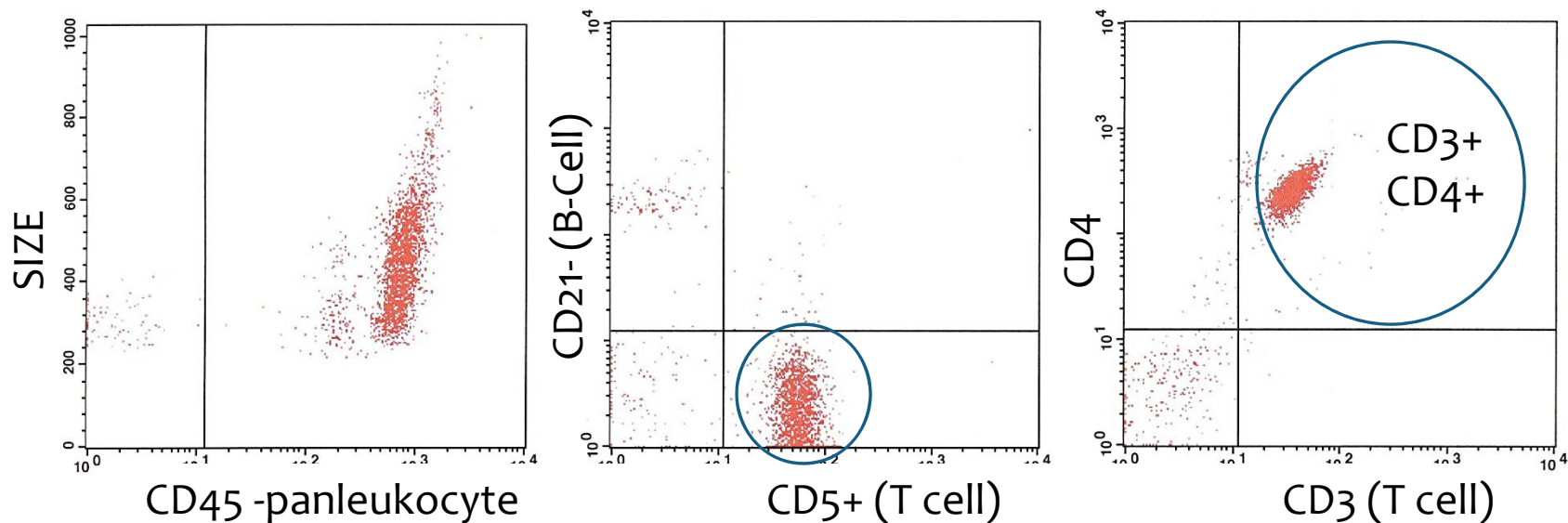
10um

Diagnosis = Stage V lymphoma

Additional Tests: Immunophenotyping using flow cytometry to determine cell lineage

Majority of lymphocytes in lymph node aspirate express T cell antigens (CD5, CD3, CD4)

Cell lineage = T cell lymphoma
(poorer prognosis than B cell lymphoma)



Hypercalcemia common with T Cell Lymphomas

Acknowledgements

Dr. Diana Burr, Oncology Resident

Dr. Kate Pennick, Clinical Pathology Resident

Dr. Steve Stockham, Clinical Pathologist

Anushka George, Research Assistant

Dr. Melinda Wilkerson, Clinical Pathologist