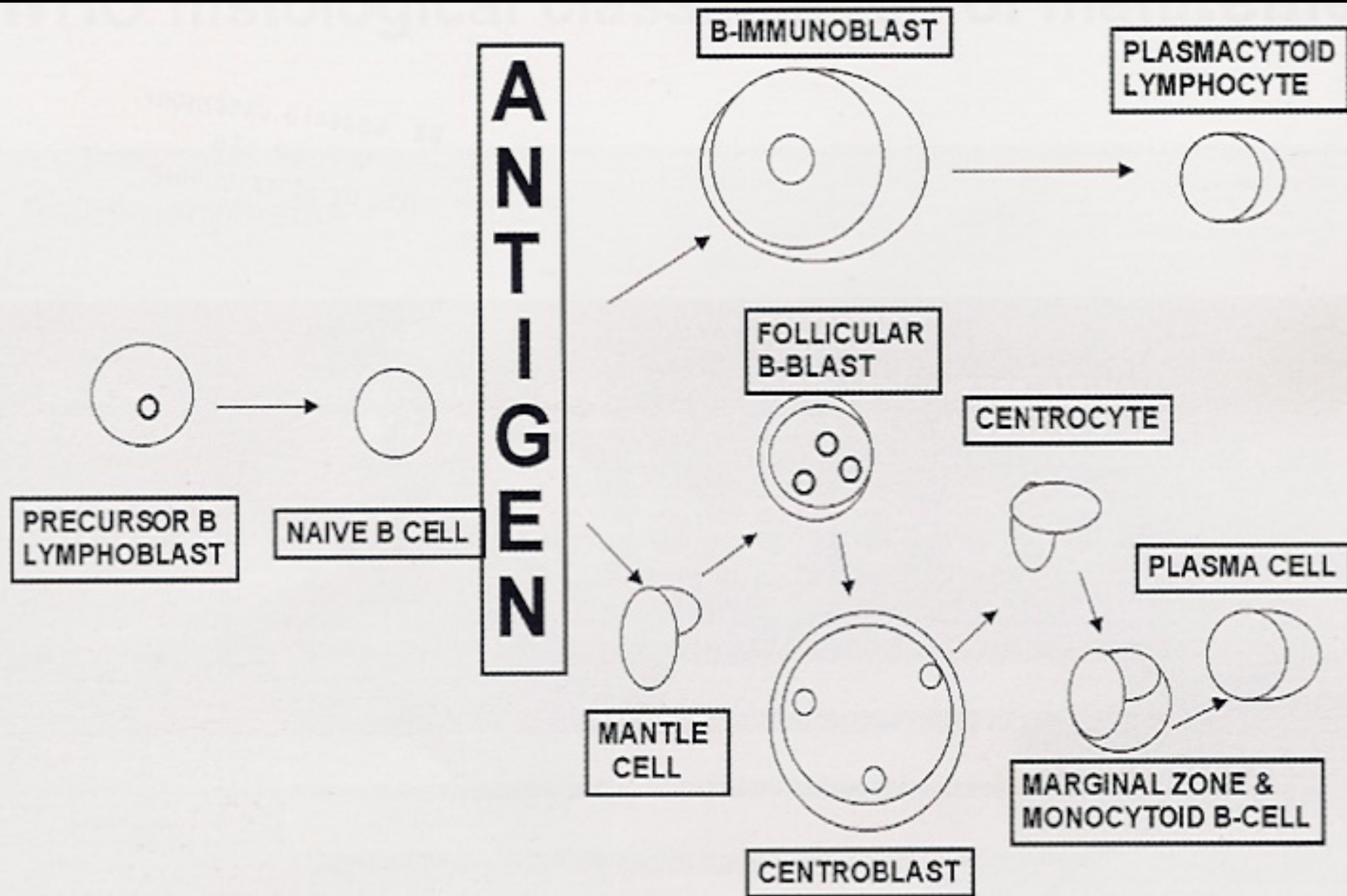


Neoplasias Linfoproliferativas



Dardo Riveros
Sección Hematología
Departamento de Medicina Interna

Diferenciación de Células B



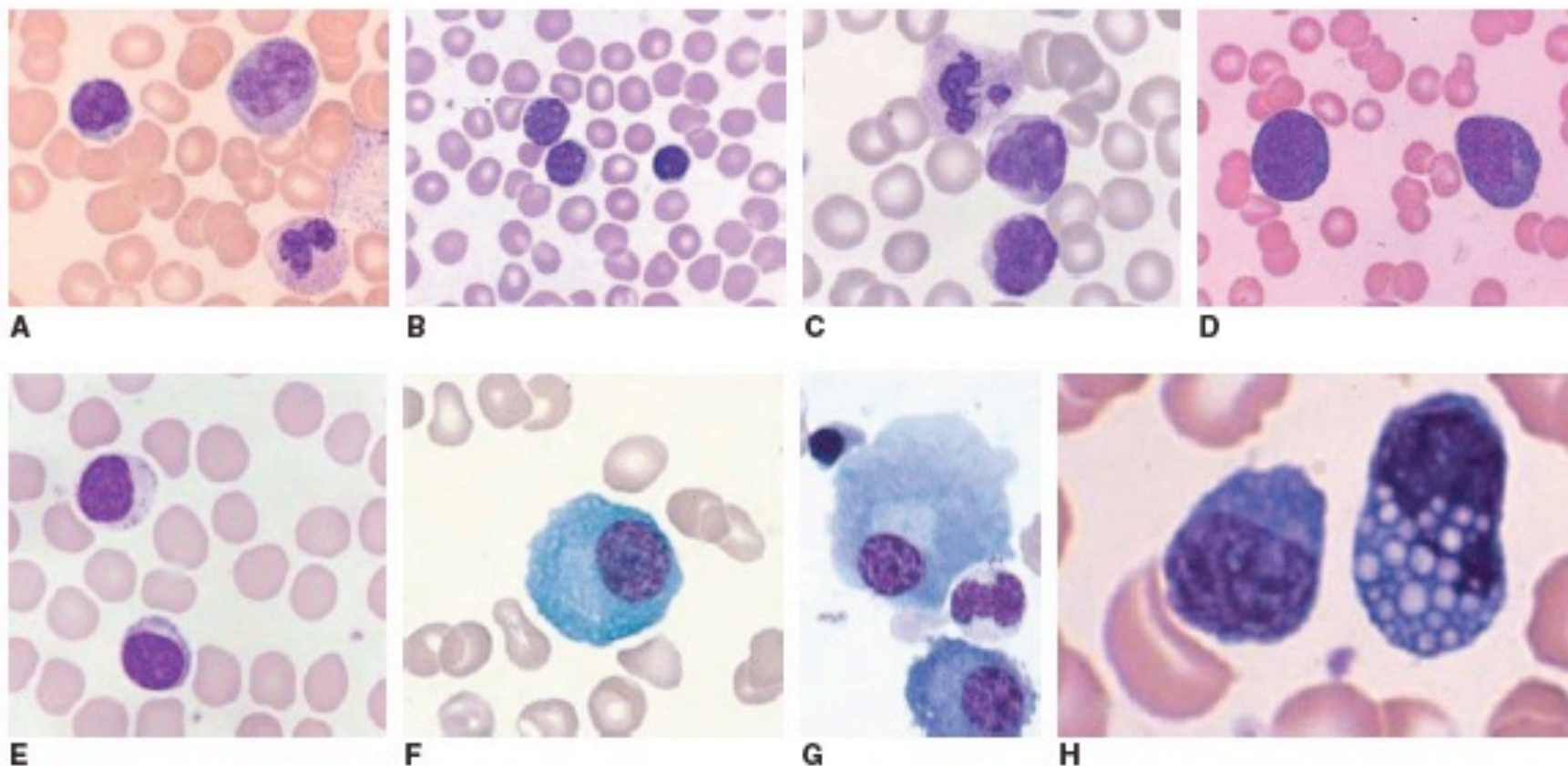
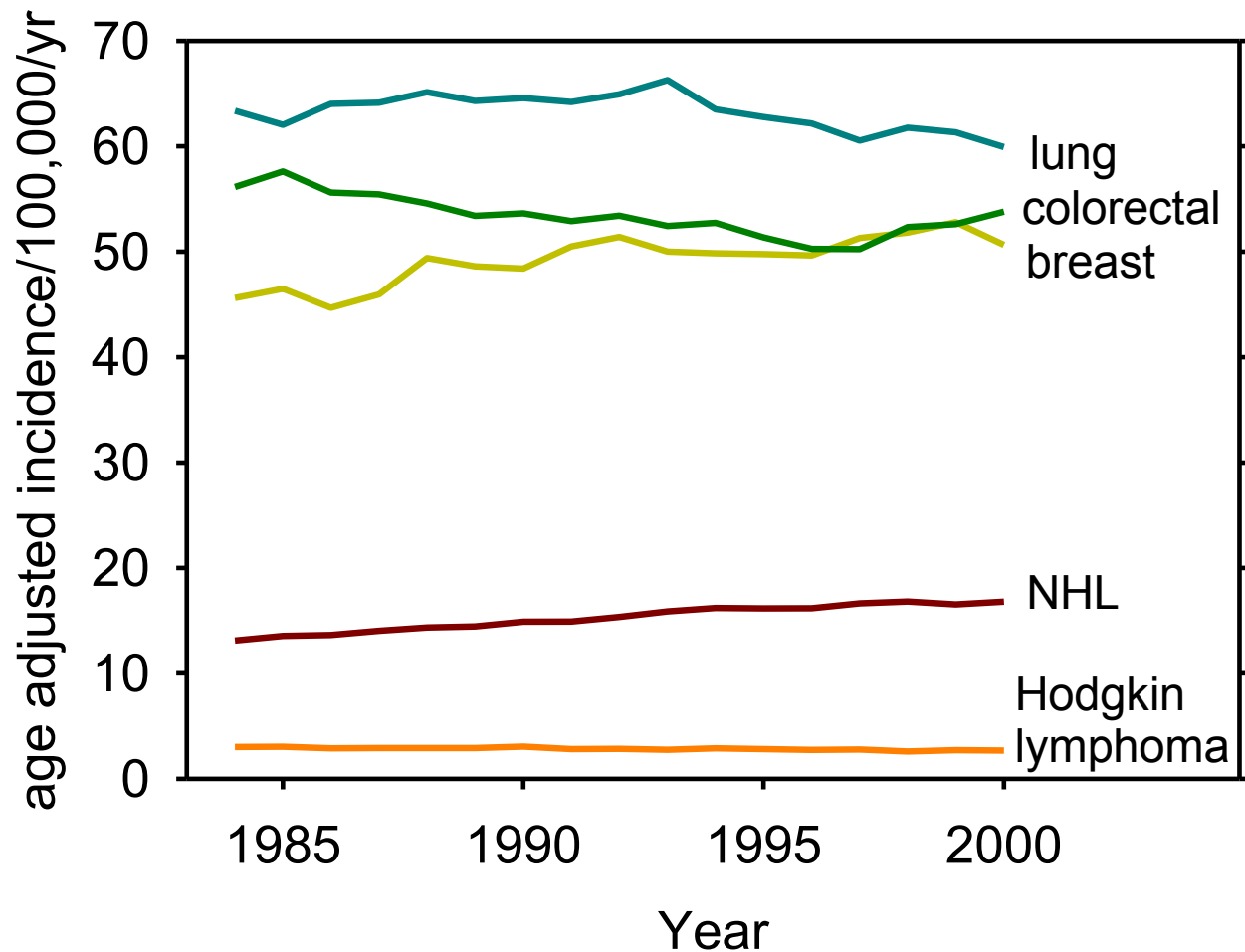


Figure 73-1. Wright-Giemsa stained blood films showing (A) a normal, small lymphocyte, monocyte, and segmented neutrophil; (B) normal small lymphocyte and two medium-sized lymphocytes; (C) neutrophil and two lymphocytes with morphologic features characteristic of *Bordetella pertussis* infection (small size, cleaved nuclei, and scant cytoplasm); (D) reactive lymphocytes; and (E) large granular lymphocyte and small lymphocyte. Wright-Giemsa stained marrow films showing (F) normal plasma cell; (G) two normal plasma cells, one nucleated red cell, and one neutrophil; and (H) two plasma cells with one containing many Russell bodies.

Incidencia de linfomas en comparación con otros tumores. Registro canadiense



THE UPDATED WHO CLASSIFICATION OF HEMATOLOGICAL MALIGNANCIES

The 2016 revision of the World Health Organization classification of lymphoid neoplasms

Mature B-cell neoplasms	
Chronic lymphocytic leukemia/small lymphocytic lymphoma	X
Monoclonal B-cell lymphocytosis*	
B-cell prolymphocytic leukemia	
Splenic marginal zone lymphoma	
Hairy cell leukemia	
<i>Splenic B-cell lymphoma/leukemia, unclassifiable</i>	
<i>Splenic diffuse red pulp small B-cell lymphoma</i>	
<i>Hairy cell leukemia-variant</i>	
Lymphoplasmacytic lymphoma	
Waldenström macroglobulinemia	
Monoclonal gammopathy of undetermined significance (MGUS), IgM*	
μ heavy-chain disease	
γ heavy-chain disease	
α heavy-chain disease	
Monoclonal gammopathy of undetermined significance (MGUS), IgG/A*	
Plasma cell myeloma	X
Solitary plasmacytoma of bone	
Extraosseous plasmacytoma	
Monoclonal immunoglobulin deposition diseases*	
Extranodal marginal zone lymphoma of mucosa-associated lymphoid tissue (MALT lymphoma)	
Nodal marginal zone lymphoma	
<i>Pediatric nodal marginal zone lymphoma</i>	
Follicular lymphoma	X
In situ follicular neoplasia*	
Duodenal-type follicular lymphoma*	
Pediatric-type follicular lymphoma*	
Large B-cell lymphoma with IRF4 rearrangement*	
Primary cutaneous follicle center lymphoma	
Mantle cell lymphoma	
In situ mantle cell neoplasia*	
Diffuse large B-cell lymphoma (DLBCL), NOS	X
Germinal center B-cell type*	
Activated B-cell type*	
T-cell/histiocyte-rich large B-cell lymphoma	
Primary DLBCL of the central nervous system (CNS)	
Primary cutaneous DLBCL, leg type	
EBV ⁺ DLBCL, NOS	
EBV ⁺ mucocutaneous ulcer*	
DLBCL associated with chronic inflammation	
Lymphoma of the anus	
Primary mediastinal large B-cell lymphoma	
Intravascular large B-cell lymphoma	
ALK ⁺ large B-cell lymphoma	
Plasmablastic lymphoma	
Primary effusion lymphoma	
HHV8 ⁺ DLBCL, NOS*	
Burkitt lymphoma	
<i>Burkitt-like lymphoma with 11q aberration*</i>	
High-grade B-cell lymphoma, with MYC and BCL2 and/or BCL6 rearrangements*	
High-grade B-cell lymphoma, NOS*	
B-cell lymphoma, unclassifiable, with features intermediate between DLBCL and classical Hodgkin lymphoma	

Mature T and NK neoplasms

T-cell prolymphocytic leukemia

T-cell large granular lymphocytic leukemia

Chronic lymphoproliferative disorder of NK cells

Aggressive NK-cell leukemia

Systemic EBV⁺ T-cell lymphoma of childhood*

Hydroa vacciniforme-like lymphoproliferative disorder*

Adult T-cell leukemia/lymphoma

Extranodal NK-/T-cell lymphoma, nasal type

Enteropathy-associated T-cell lymphoma X

Monomorphic epitheliotropic intestinal T-cell lymphoma*

*Indolent T-cell lymphoproliferative disorder of the colon**

Hepatosplenic T-cell lymphoma

Subcutaneous panniculitis-like T-cell lymphoma

Mycosis fungoides X

Sézary syndrome

Primary cutaneous CD30⁺ T-cell lymphoproliferative disorders

Lymphomatoid papulosis

Primary cutaneous anaplastic large cell lymphoma

Primary cutaneous $\gamma\delta$ T-cell lymphoma

Primary cutaneous CD8⁺ aggressive epidermotropic cytotoxic T-cell lymphoma

*Primary cutaneous acral CD8⁺ T-cell lymphoma**

*Primary cutaneous CD4⁺ small/medium T-cell lymphoproliferative disorder**

Peripheral T-cell lymphoma, NOS

Angioimmunoblastic T-cell lymphoma

*Follicular T-cell lymphoma**

*Nodal peripheral T-cell lymphoma with TFH phenotype**

Anaplastic large-cell lymphoma, ALK⁺

Anaplastic large-cell lymphoma, ALK⁻*

*Breast implant-associated anaplastic large-cell lymphoma** X

TyNK
27

Hodgkin lymphoma

Nodular lymphocyte predominant Hodgkin lymphoma

Classical Hodgkin lymphoma **X**

Nodular sclerosis classical Hodgkin lymphoma

Lymphocyte-rich classical Hodgkin lymphoma

Mixed cellularity classical Hodgkin lymphoma

Lymphocyte-depleted classical Hodgkin lymphoma

Posttransplant lymphoproliferative disorders (PTLD) **X**

Plasmacytic hyperplasia PTLD

Infectious mononucleosis PTLD

Florid follicular hyperplasia PTLD*

Polymorphic PTLD

Monomorphic PTLD (B- and T-/NK-cell types)

Classical Hodgkin lymphoma PTLD

Histiocytic and dendritic cell neoplasms

Histiocytic sarcoma

Langerhans cell histiocytosis

Langerhans cell sarcoma

Indeterminate dendritic cell tumor

Interdigitating dendritic cell sarcoma

Follicular dendritic cell sarcoma

Fibroblastic reticular cell tumor

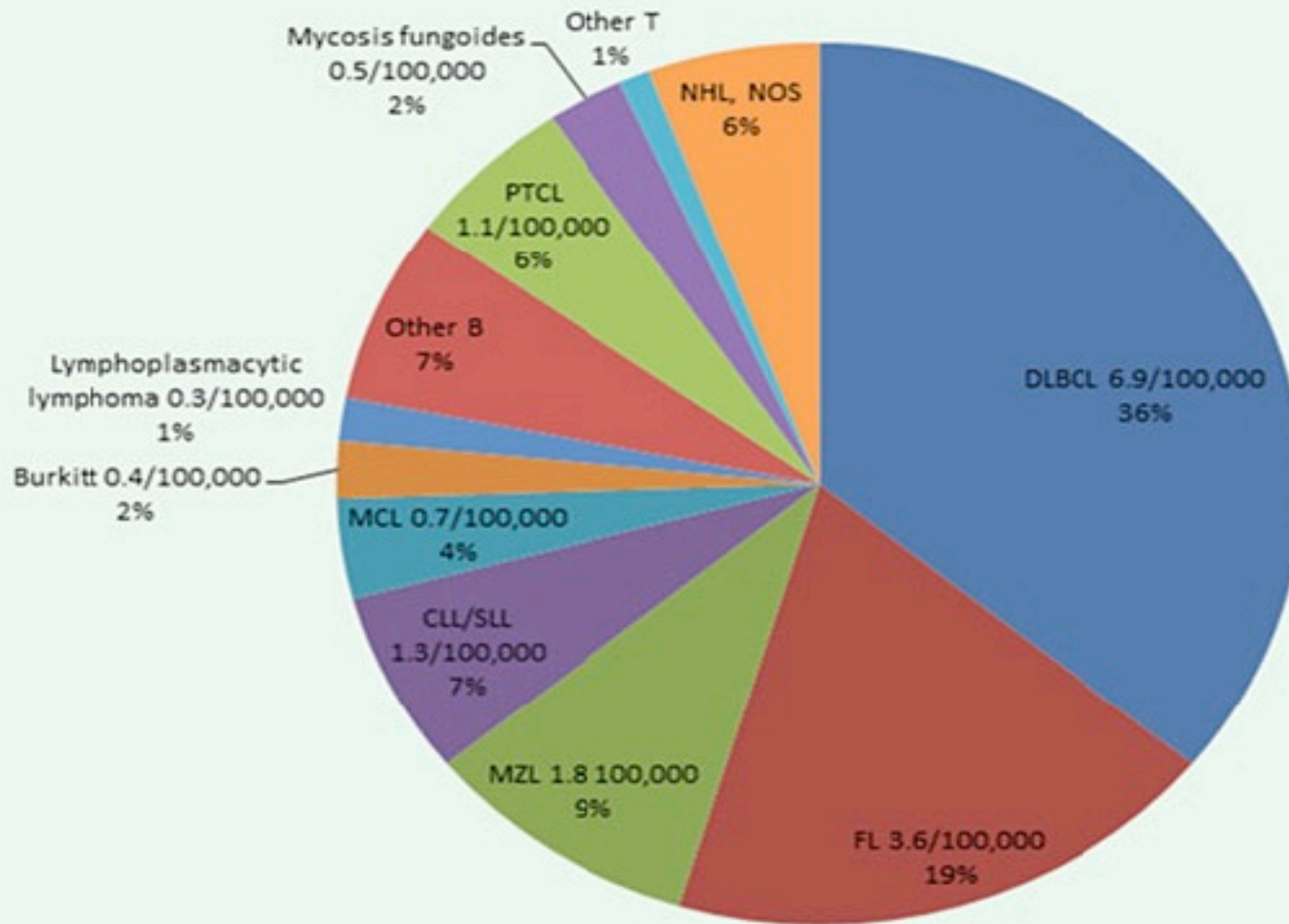
Disseminated juvenile xanthogranuloma

Erdheim-Chester disease*

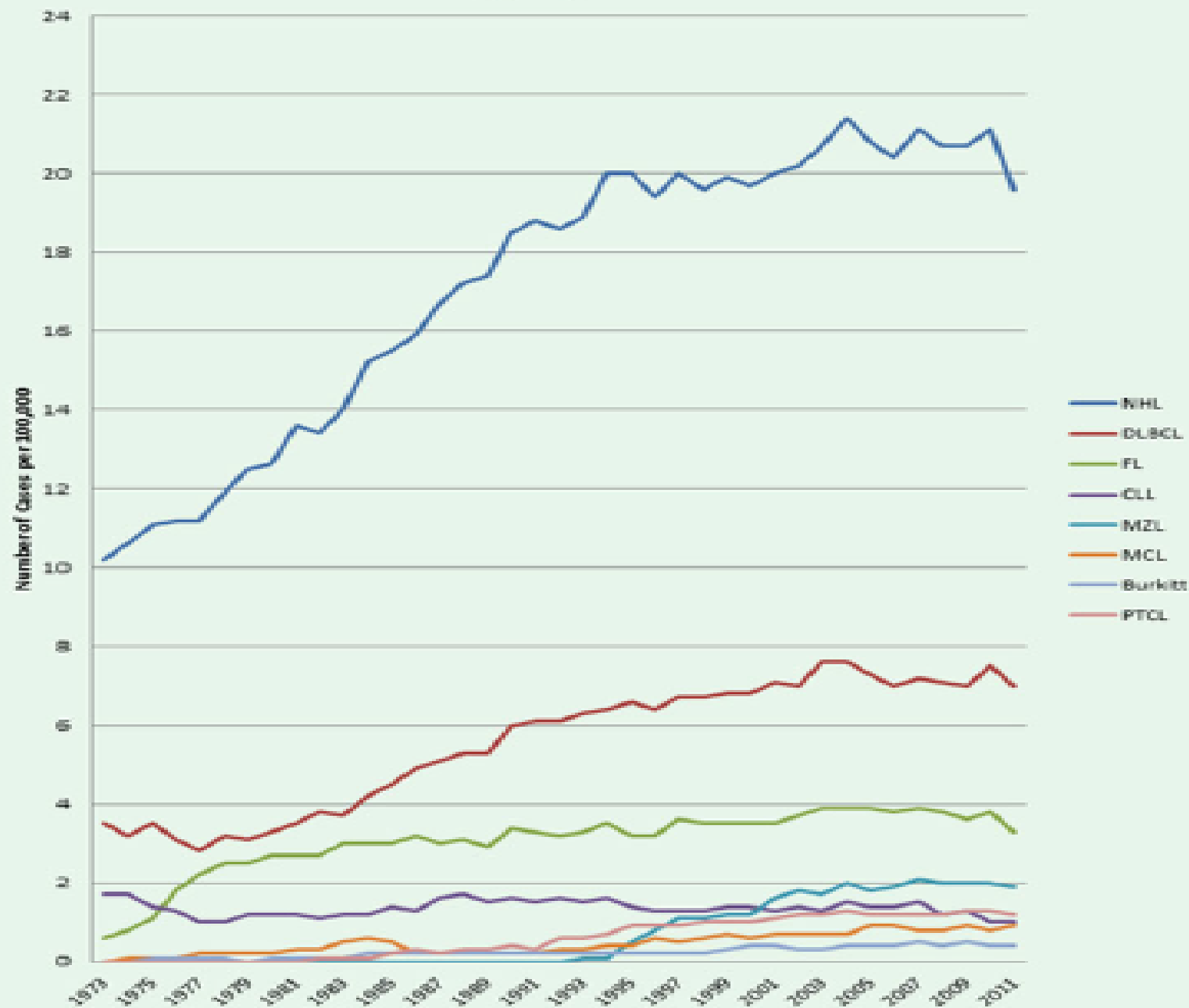
Otros
20

Instituto Nacional del Cáncer

Incidence Rates of NHL Subtypes, SEER18 2000-2011



Age-Adjusted Incidence Rates of Overall NHL and main subtypes, SEER9 1973-2011



Linfomas no Hodgkin a Células B en Adultos

- Difuso a grandes células B: 37 %**
- Folicular: 29 %**
- MALT: 9 %**
- LLC / linfoma de linfocitos pequeños: 12 %**
- Manto: 7**
- Otros: <10%**

Linfomas no Hodgkin

Clasificación por relevancia clínica

Indolentes a células B

**Leucemia linfática crónica/Linfoma a
linfocitos pequeños**

Linfoma folicular grados 1 y 2

Linfoma linfoplasmocítico/Waldenström.

Linfomas no Hodgkin

Clasificación por relevancia clínica

Agresivos a células B

Linfoma del manto

Folicular grado 3

Difuso a grandes células B

Mediastinal B

Burkitt y símil-Burkitt

Linfomas no Hodgkin

Clasificación por relevancia clínica

Indolentes a células T y NK

Micosis fungoide/Sézary

Linfomas no Hodgkin

Clasificación por relevancia clínica

Agresivos a células T y NK

Anaplásico a células grandes, sistémico

Células T, periférico

Linfoblástico, precursor T

Leucemia/Linfoma T del adulto

Otras neoplasias linfoides

Clasificación por relevancia clínica

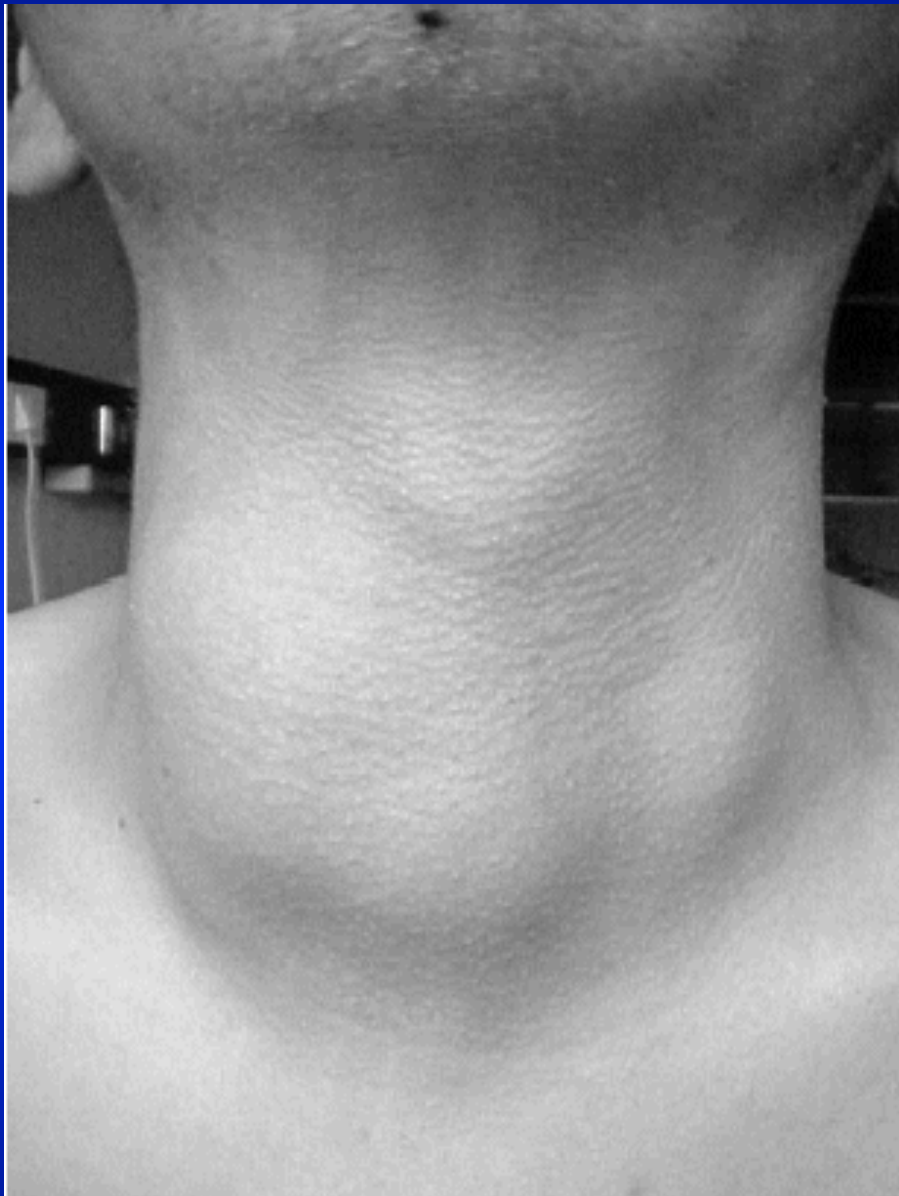
Linfoma Hodgkin

Discrasias de células plasmáticas

- Gamapatía monoclonal de origen incierto (MGUS)**
- Mieloma**
- Amiloidosis AL**

Formas de Presentación Clínica

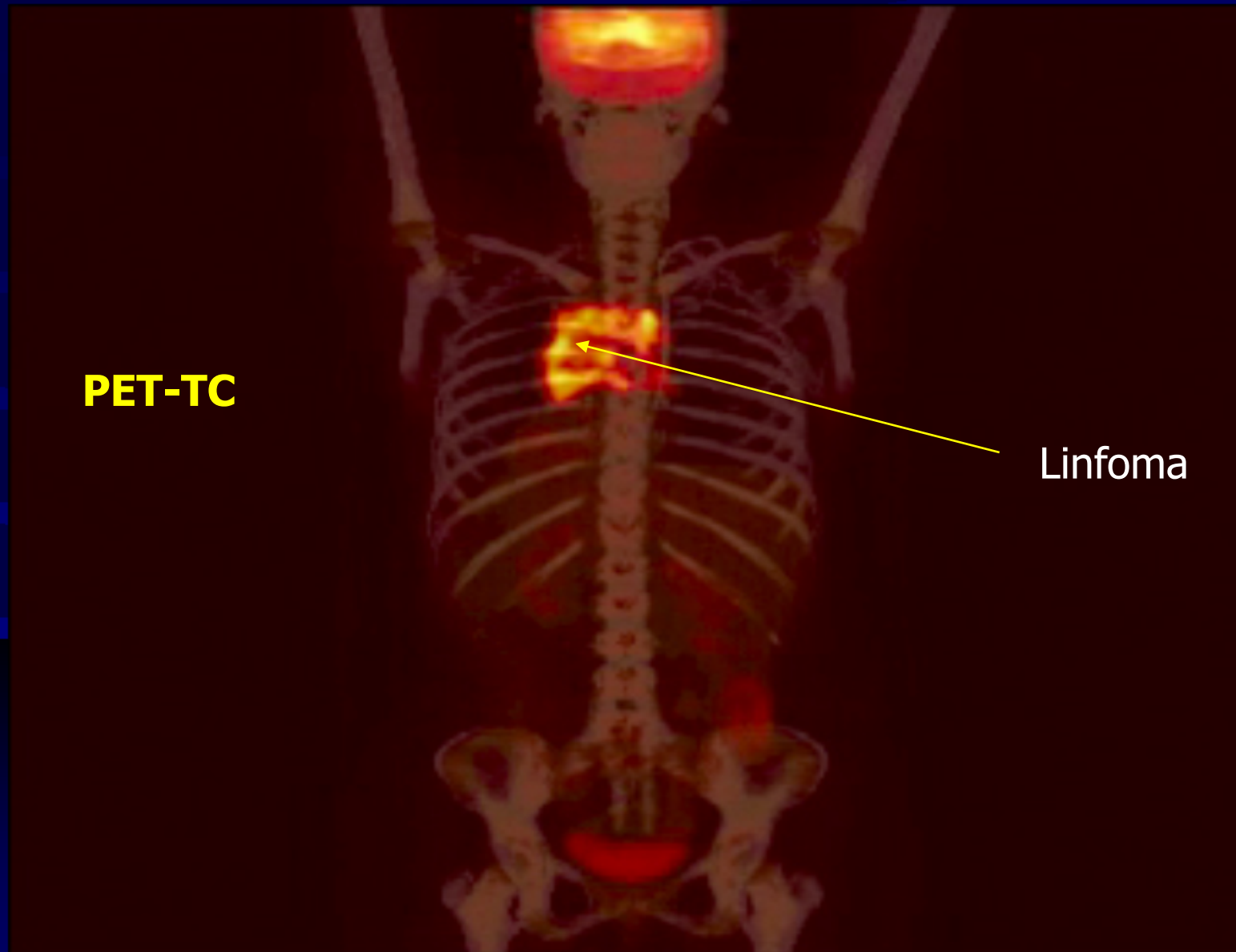
- **Adenomegalias y/o hepatoesplenomegalia**
- **Síntomas B**
- **Insuficiencia de médula ósea**
- **Linfocitosis**
- **Compromiso extraganglionar**
- **Hipogammaglobulinemia**
- **Fenómenos autoinmunes**







Persistent of Mediastinal Hodgkin Lymphoma



Juweid ME and Cheson BD. N Engl J Med 2006;354:496-507

The World Health Organization Classification of Lymphoid Neoplasms

1

Alejandra Carvajal-Cuenca, Stefano A. Pileri,
and Elias Campo

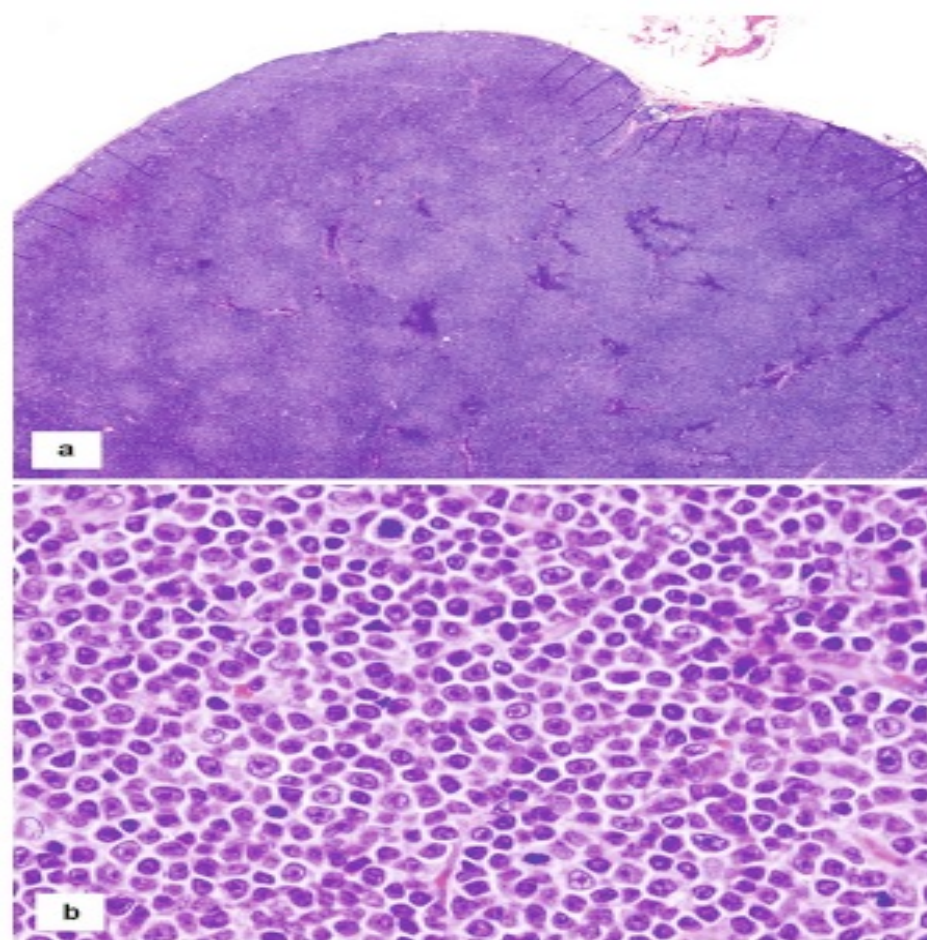


Fig. 1.2 Chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL). (a) Lymph node showing a diffuse effacement of the architecture with vaguely nodular pale areas that correspond to the proliferation centers (H&E; ×12.5). (b) At higher magnification, proliferation centers are composed of large cells that correspond to prolymphocytes and paraimmunoblasts (H&E, ×400)

Lymphoma. Younes A, and Coiffier B. Humana Press 2013

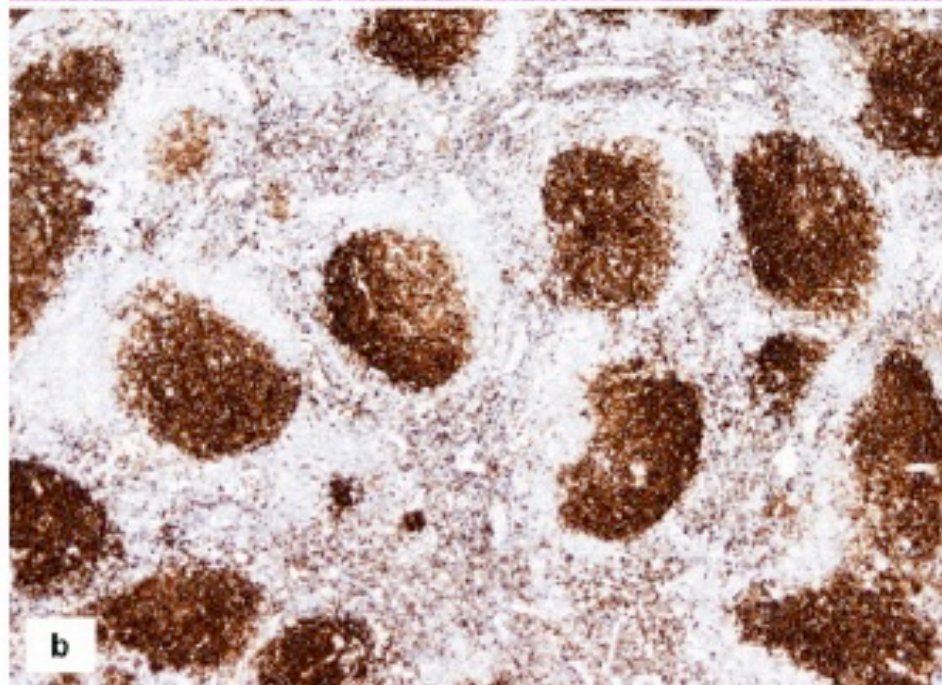
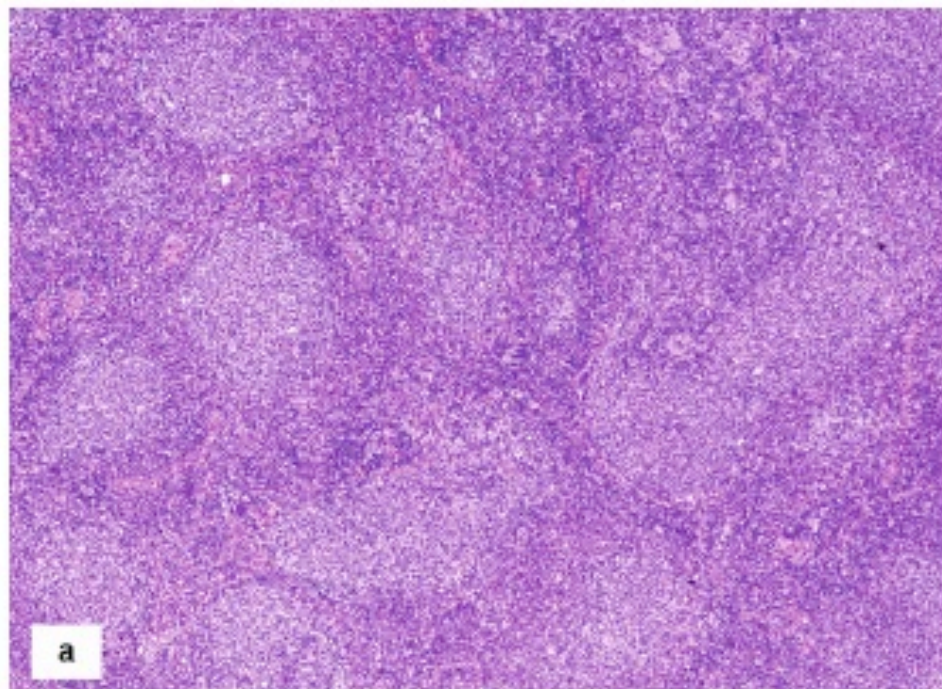
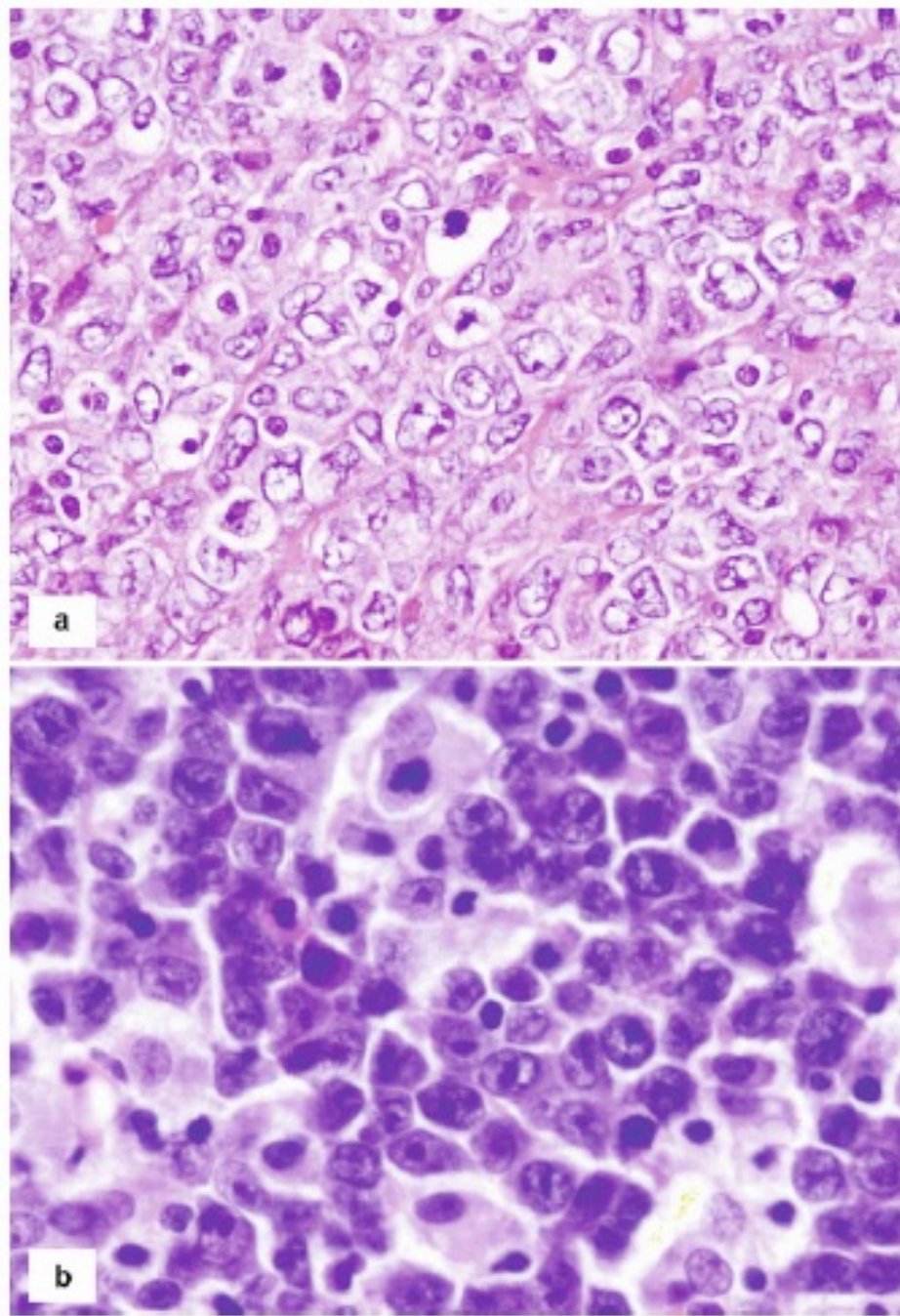


Fig. 1.6 Follicular lymphoma. (a) Lymph node infiltrated by tumor cells with a follicular growth pattern. Neoplastic follicles are homogeneous in size and morphology, tend to fuse, and show absence of macrophages (H&E, $\times 40$). (b) Neoplastic cells are CD10 positive (immunoperoxidase staining, $40\times$)

Fig. 1.8 Diffuse large B-cell lymphoma. (a) Centroblastic morphology. Note that the neoplastic cells have large nuclei with dispersed chromatin and multiple peripheral nucleoli (H&E, $\times 400$). (b) Immunoblastic morphology. Neoplastic cells are large, with round nuclei, central prominent nucleoli, and abundant eccentric cytoplasm (H&E, $\times 400$)



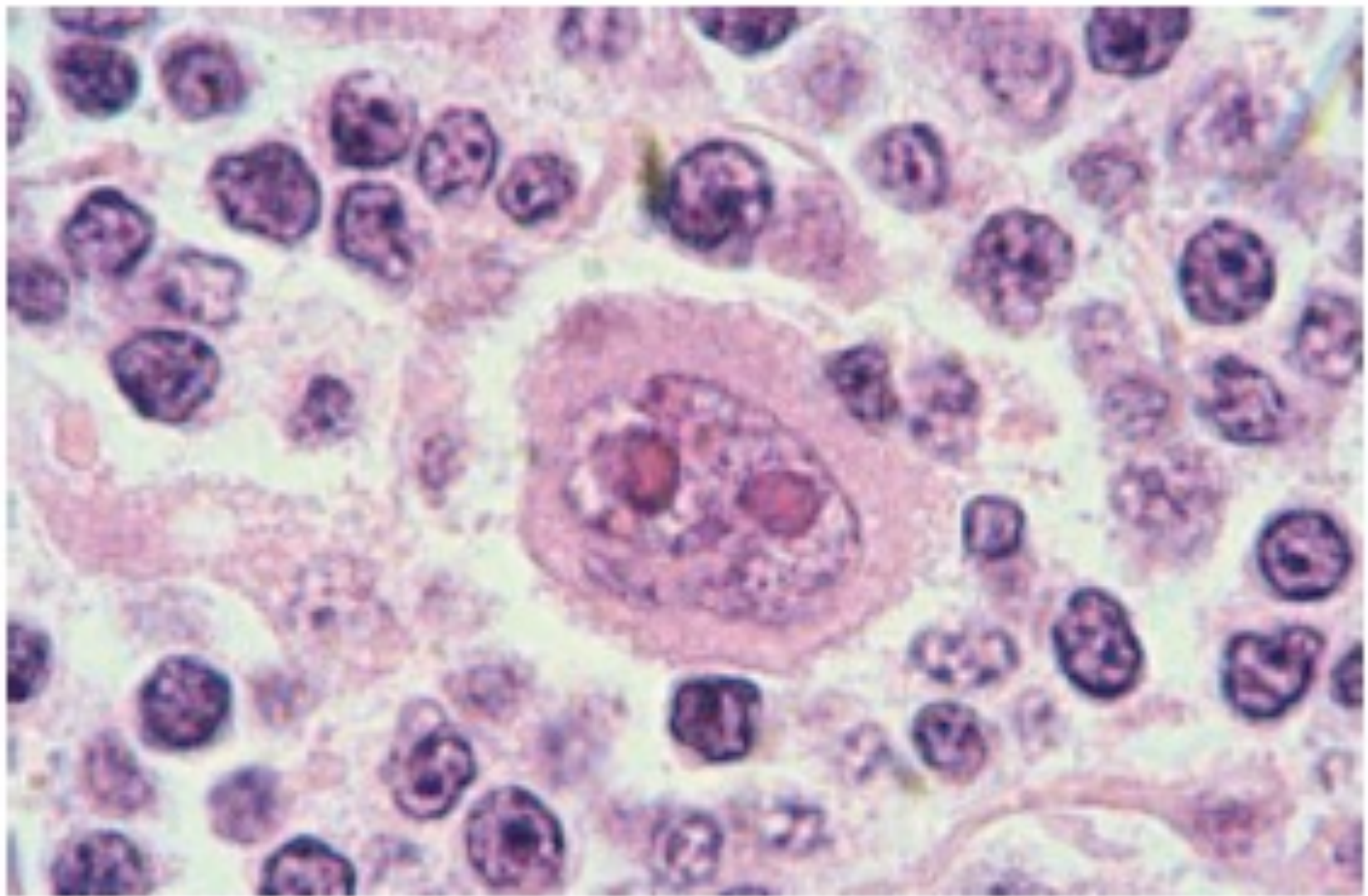
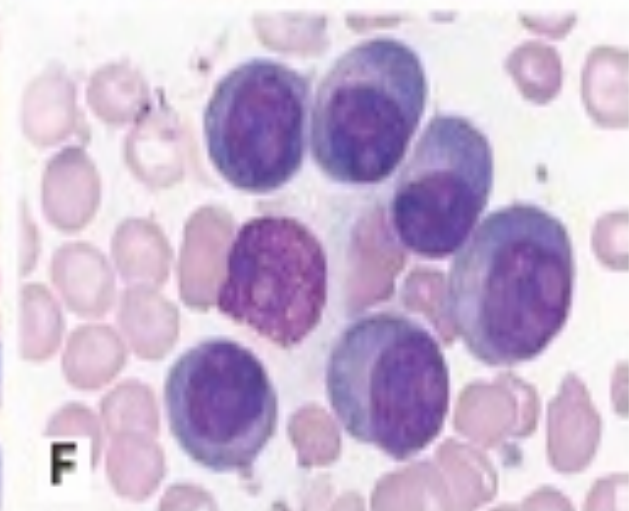
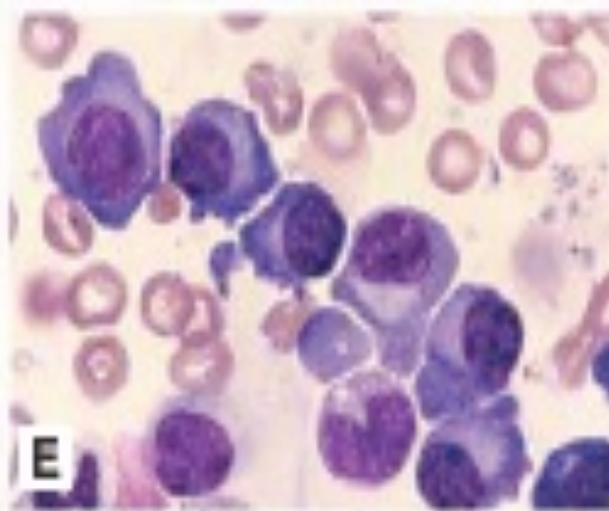
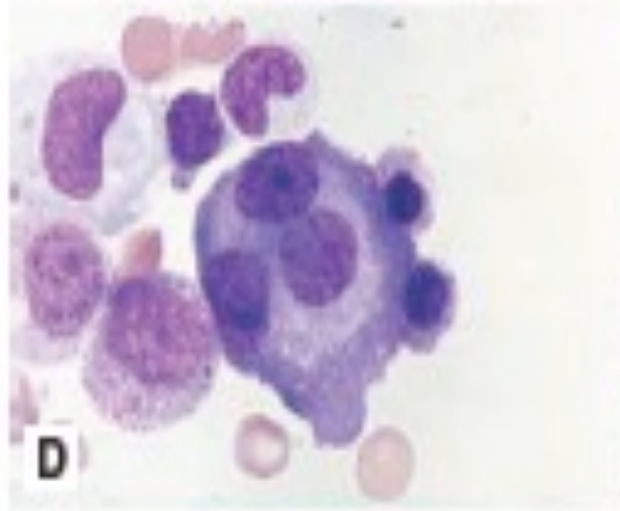
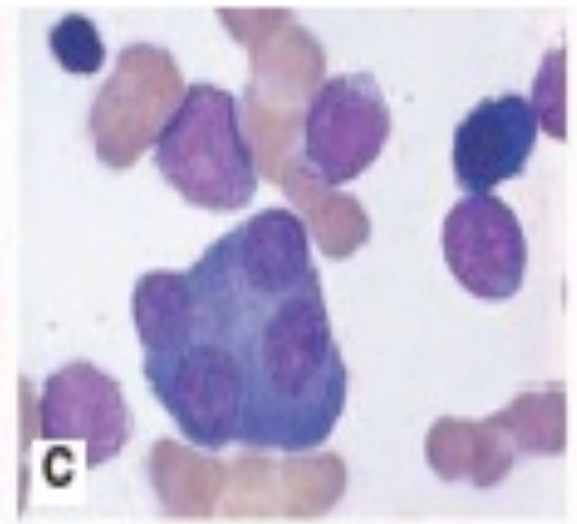
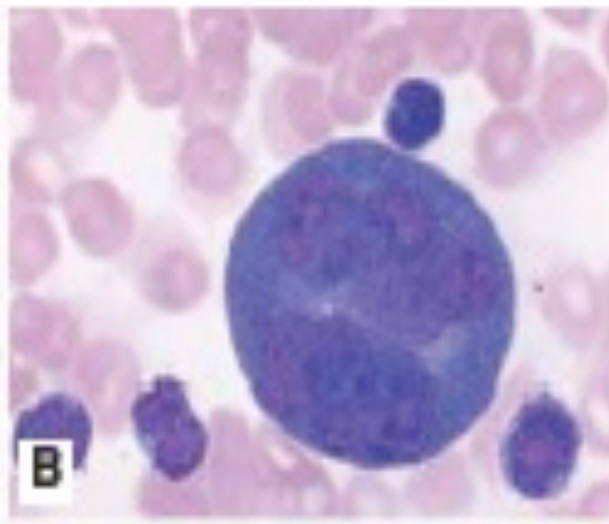
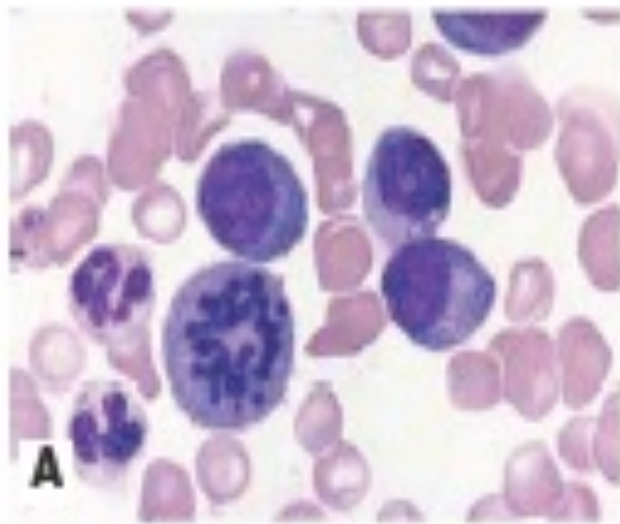


Figure 96-35. Diagnostic Reed-Sternberg cell in Hodgkin lymphoma.

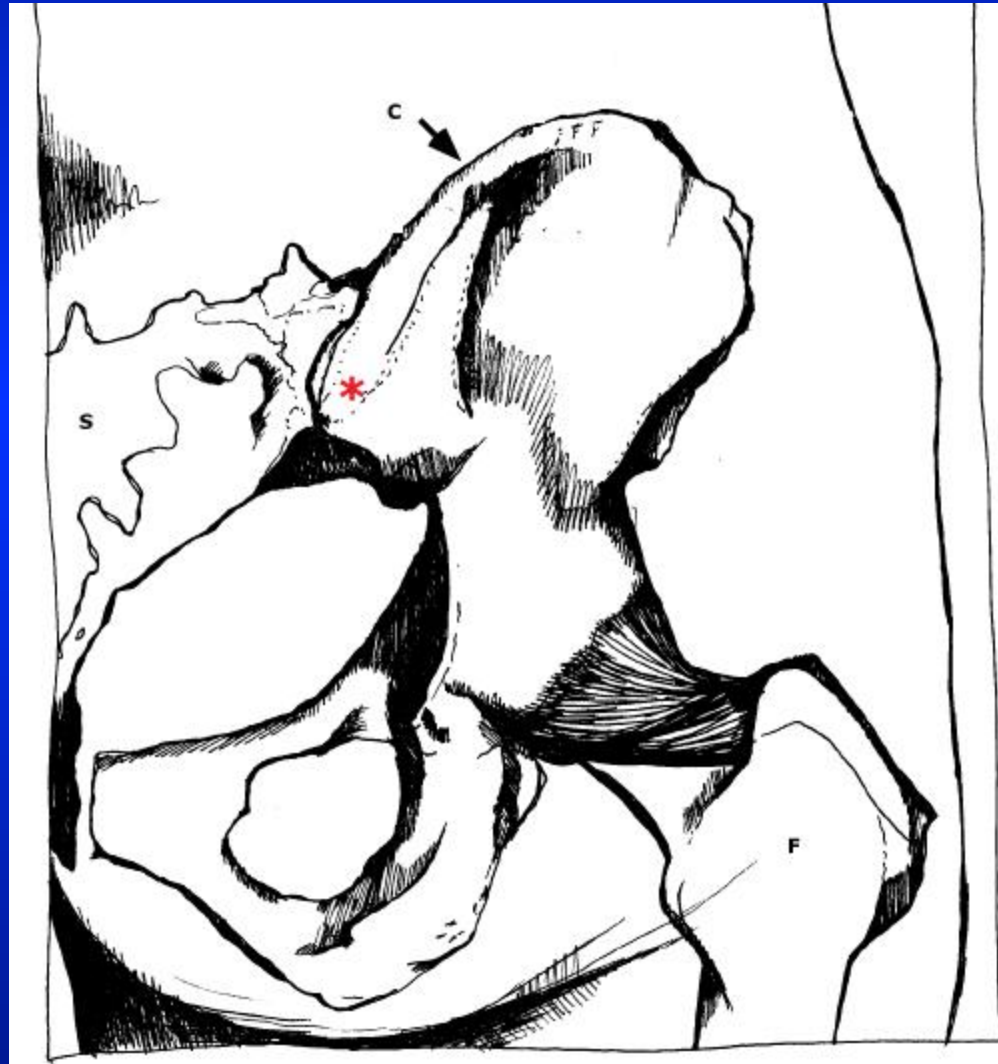


Williams Hematology. 9th Edition

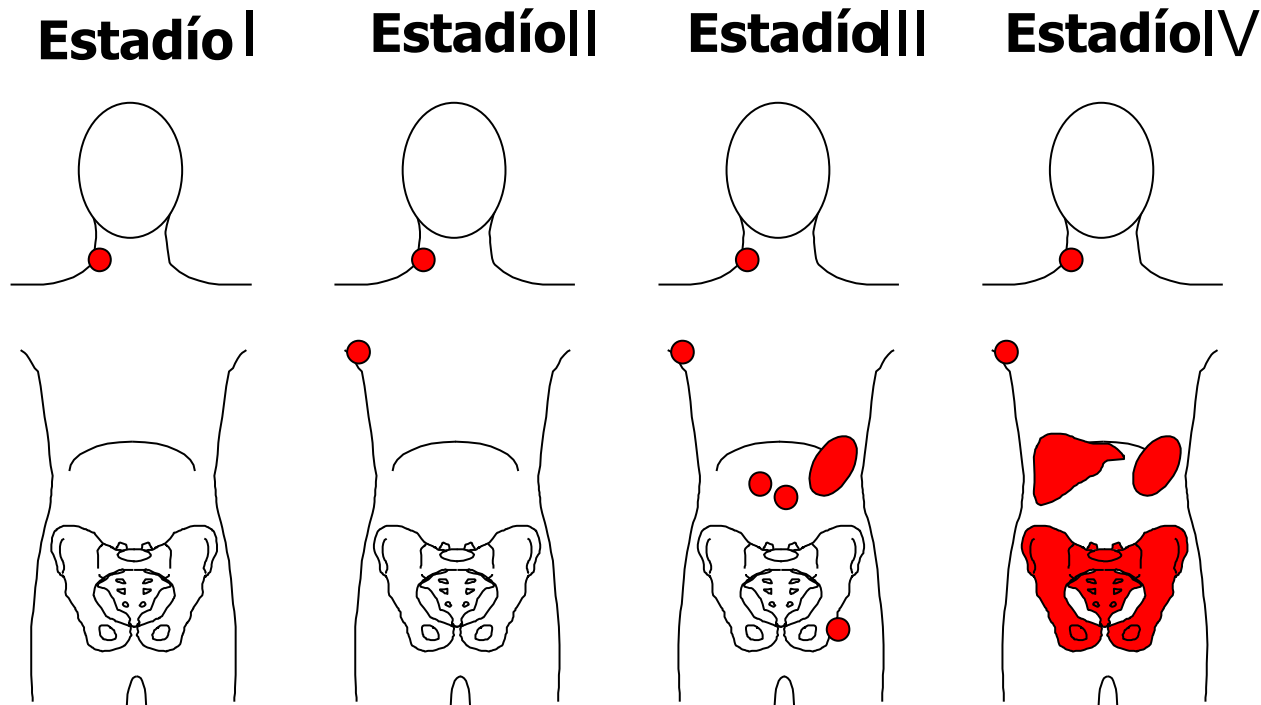


Área de la punción
en la cresta ilíaca

Aguja de aspiración



Estadificación de los linfomas



A: absence of B symptoms

B: fever, night sweats, weight loss

Estadificación de la LLC

Binet			Rai		
Descripción			Descripción		
A	<3 áreas ganglionares; no anemia ni trombocitopenia		0	Bajo riesgo	Linfocitosis
			I	Intermedio	Linfocitosis y adenopatías
B	≥3 áreas ganglionares; no anemia ni trombocitopenia		II	Intermedio	Linfocitosis y esplenomegalia ± adenopatías
			III	Alto	Linfocitosis y anemia
C	Anemia o trombocitopenia *		IV	Alto	Linfocitosis y trombocitopenia

***Hb <10 g/dL; plaquetas <100,000/ μ L.**