

lymphoma

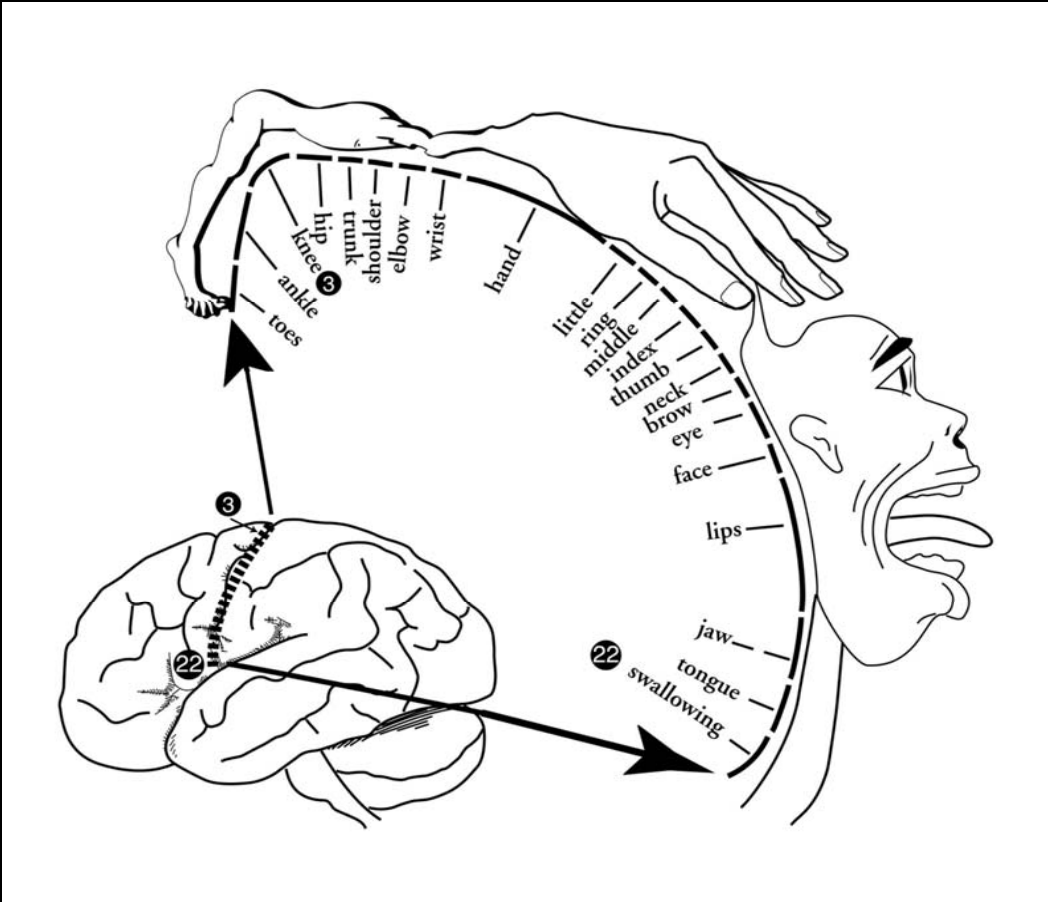
Clarence Adoo MD FACP

March 2016

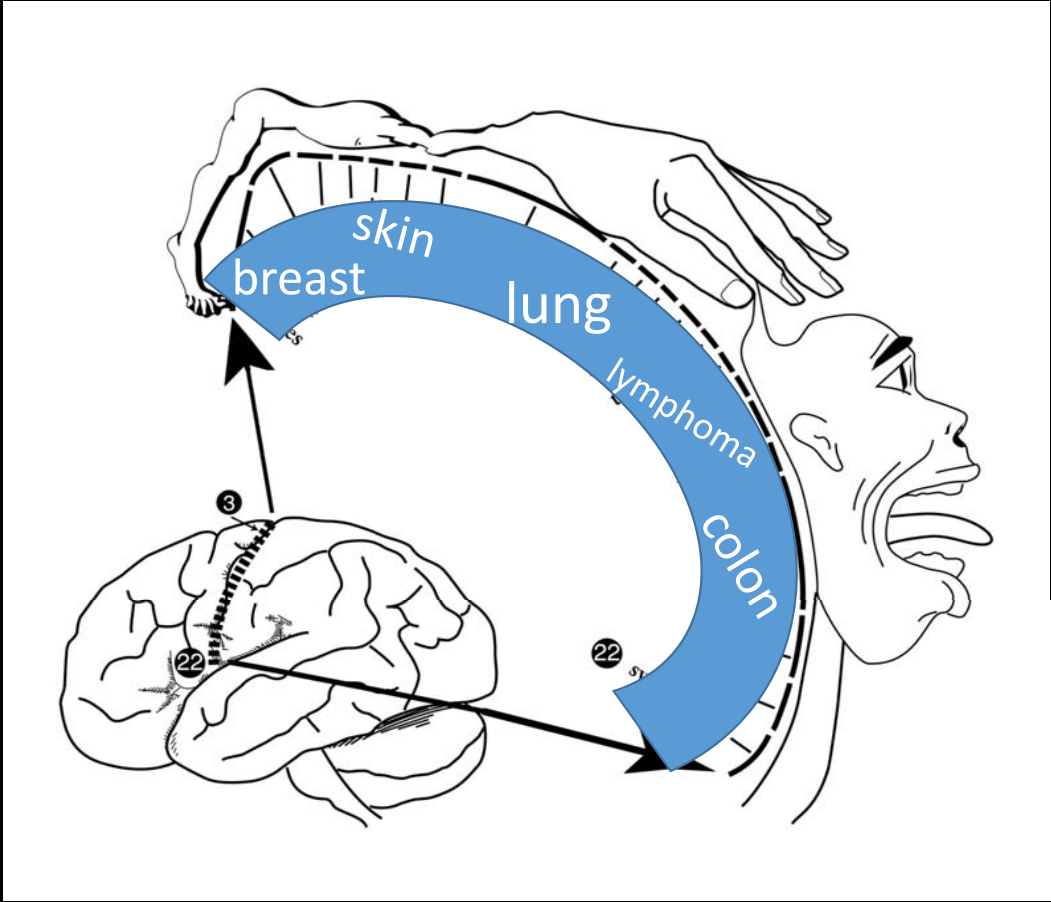
What are lymphomas

- Malignancies derived from lymphoid cells.
- Varied: almost every type
 - almost every grade of maturity
- Reflective of lymphoid cell biology
- Distinction from leukemias

The human humunculus



The internist's oncolunculus



Importance of lymphoma

- 80,000 new US cases/year
- Curability
- Etiology: prevention and screening
- Demographics: Age of onset
- Academic, scientific importance

Approach to patient: diagnosis

- Symptoms, signs:
 - Fever; night sweats; weight loss; (“B symptoms”) pruritus
 - Lymphadenopathy; splenomegaly.
- **Biopsy** (not fine needle aspirate; not core needle biopsy)
 - Excisional or incisional biopsy
 - Fresh tissue sample- saline

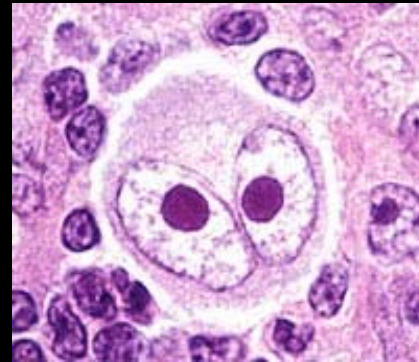
classification

- Many different systems
- Based on histology, biology, clinical behavior
- Currently **WHO classification**, based on
- **Revised European American Lymphoma** system

- Classically the “**Working Formulation**”

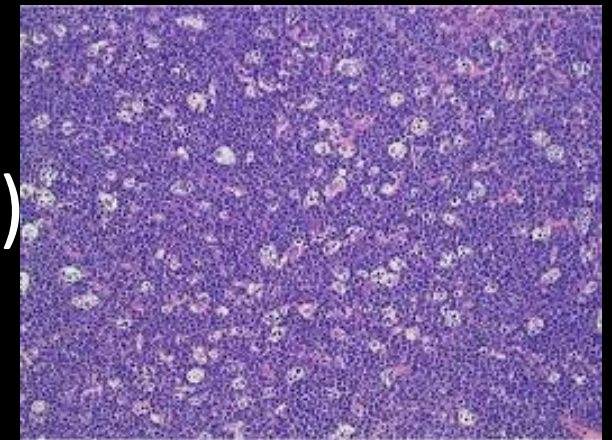
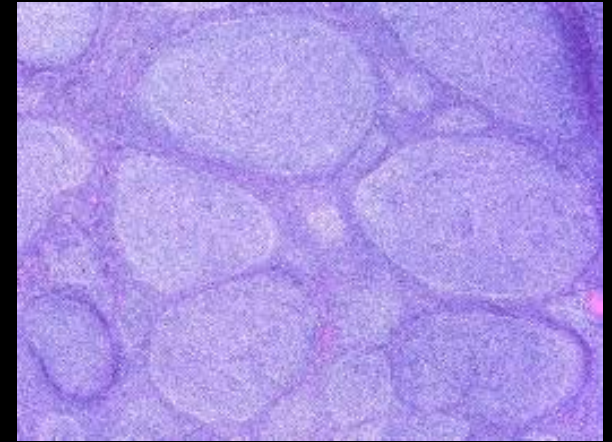
Hodgkin disease

- Classical HD
 - Nodular sclerosing
 - Lymphocyte predominant
 - Lymphocyte depleted
 - Mixed cellularity
- HD, nodular lymphocyte predominant
- Reed Sternberg cell: large, binucleate, prominent nucleoli
 - Derived from B lymphocyte



WF: non Hodgkin lymphoma

- Low grade lymphoma
 - **Follicular/ nodular** I. (indolent)
- Intermediate grade lymphoma
 - **Diffuse large cell** lymphoma
- High grade lymphoma
 - **Burkitt's** lymphoma (aggressive)
 - "starry sky" appearance



Staging: Ann Arbor system

- PET CT scan; CT scans; bone marrow aspirate and biopsy
 - Stage I: single site
 - Stage II: two separate sites, both above or below diaphragm
 - Stage III: above and below diaphragm, not widespread
 - Stage IV: widespread, such as bone marrow involvement
- A or B (fever , night sweats, wt loss)
- Nodal or Extranodal; Spleen; CNS; etc

Treatment

- Chemotherapy: especially for higher stages, aggressive histology
- External beam radiation therapy: localized disease
- Immunotherapy: “monoclonal” antibodies
 - Cytosin, Adriamycin (Hydroxydaunorubicin), vincristine (Oncovin) and Prednisone . CHOP
 - Adriamycin, Bleomycin, Vinblastine, Dacarbazine. ABVD
 - Targeted therapy: eg rituximab, a monoclonal antibody
 - “salvage therapy”
 - Bone marrow/ stem cell transplantation