WBC
NEOPLASTIC
Proliferations
Lymphoproliferative
WBC

ALL

AML

HL

Prec B

Prec T

Peri B

Peri T

Many variants
Phenotype varies
factors affecting
WBC count

Leukemic
neutropenia
WBC, LN, spleen & thymus

Robbins 2014
LEUKOPENIA

- NEUTROPENIA
- PG
- MCC
- DRUG TOXICITY
- CMF RRT
- AGNANUOUSOSIS
- MISHO
- TUTU
LANGERHANS CELL HISTIOCYTOSIS

- Pulmonary
- Unifocal
- Malignant
- Langerhans cell
- Systemic
- Multifocal
- Congenital
- Giant cell
- Benign
- Langerhans
- Reactive
- Sinusoidal
- Congenital
- Benign
DHT: Maintenance Hematopoietic Tissues

- SCF
- e-SCF
- GM-CSF
- Epo
- GM-CSF, Epo

- G-CSF
- GM-CSF, G-CSF

- SCF, e-SCF
  - REGULATED BY LIN-54 and GFAP

- OCS
  - O2: Specialized Matrix Niches

- SDF-1
  - SEPARATES FADING HEMATOPOIETIC CELLS

- O2:
  - MAINTAINS APPROPRIATE TUNING

- Can preserve

- NHPs (in vivo)
LYMPH NODES
ETIOLOGÈNE FACTORS
LYMPHOID LEUKEMIA / NHL
ORIGIN OF LYMPHOID NEOPLASMS

T-ALL

T-cell neoplasms

Large granular lymphocytes

Large cell lymphoma

Leukemia

LY/LE

MCL

MCL

DLBCL

Lymphoma

Hodgkin lymphoma

Non-Hodgkin lymphoma

Burkitt lymphoma

T-cell lymphoma

NK/missing

Classical Hodgkin lymphoma

Marrow

Spleen

T cells

B cells

NK cells

Surgery

Chemotherapy

Radiotherapy
ALL / Lymphomas
DLBCL

- IMMUNOPHENOT
  - CD20
  - CD79a

- TGF EXP
- CD20 EXP

- T(14;18) +20%
- 3q27
- 13q14

- 10%
- CD10

- CD13
- CD21

- CD15
- CD30

- CD45

- CD5

- CD23

- CD24

- CD103

- CD15

- CD123

- CD34

- CD79a

- CD79b

- CD19

- CD8

- CD4

- CD2

- CD5

- CD23

- CD30

- CD15

- CD123

- CD103

- CD15

- CD123

- CD103

- CD15

- CD123

- CD103

- CD15
Sporadic typhus

Discussion

Incubation
LymphoGranular Lymphoma

UC

Large LQ

2 variants

2-type

NK

TC

CO2

CO3+

NK

Lytic in stage 3

Transplant from
HD
MC

II ox %id
To: #PS

NS: Young

10 min be PVAMP

II old U

 tweaks

Live more

I owe more or more now

I owe what I should

R: one but

R: still now

C: out

Best important

A gustaf 5th

B Fever 101 or Night sweats 2-14 or 1-2 % weight loss
**Clinical Staging**

**HLA NHL**

**ANN ARBOR**

**Stage D**

- SINGLE LN Region (I)
- OR Single Extralymph Nodes (II)

**Stage II**

- TWO LN Regions on Same Side Distant Above V. Cava (IIIa)
- OR LN Involvement of V. Cava (IIIb)

**Stage III**

- BOTH SIDES Distant (IIIc)
- OR Involved"
MYELOID NEOPLASMS

- Myeloid origin
- Accumulate immature myeloid blasts
- SUPPRESS N HEMATOPOIESIS
- Myeloid neoplasms

- Mainly MYELOIDS
- MYELOID GROWTH
- CYCLOPHOSPHAMIDE
- MYELOID PRODUCTION

- T cells inhibit hematopoiesis
- Blasts
- HEMATOPOIESIS
- CYCLIN PROTEIN

- CYTOKINES
- CYTOKINES
Myeloid Neoplasms

- MDS
- Leukemia
- Myelodysplastic Syndrome

- Cytopenias
- Suppression of Hematopoiesis

- Mainly myeloid products
- DOAC
- HMGR
- CYCLO
- TV
- LERO
- TV

- CCR
- ALtered hematopoiesis

- Acute
- Immature
- Blasts
AML = ALL

PT presenting

A11A = ALL

A11 L panel

Fatigue

LAD

Goofy

FRU only 20%

A+MN 2Y

Very poor

Knee than all
Cytogenetics

- AML
- Denovo
- MDS
- T-cell
- NK
- Standard
- Minimal
- Deletion
- Patients
- Assoc
- MLL
- MLL-AF4
- MLL-MLL

- T-ALL
- KMT2A

- MLL-AF4
- MLL-MLL

- KMT2A

- Inv
- 16
- 7q11

- Ph
- E
- TEL
- E2A
- RUNX1
- V-Myb

- Ph
- E
- TEL
- E2A
- RUNX1
- V-Myb

- Ph
- E
- TEL
- E2A
- RUNX1
- V-Myb

- Ph
- E
- TEL
- E2A
- RUNX1
- V-Myb
60% increase per month + growth
Only 15-30% drop on 5y
Digital for AML
MOS
Since V (c) have likely been damaged
MPD

- CLL
- AL

- Hypertonia
- APR
- Nematode
- Transferred
- Transplanted
- Membrane
- 3 point

- CLAS
- ICU
- LAB
- Malign

- CF
- NRD prolif
- GC

- Survival
- Hande

- Prolif
- CF
- NRD prolif
- GC
- Regen

- Nematode

- CF
- NRD prolif
- GC

- Survival
- Hande

- Prolif
- CF
- NRD prolif
- GC

- Regen

- Membrane

- 3 point

- Transferred
- Transplanted

- Hypertonia

- APR

- Nematode
ML2

ML3: 9000 animates K

ACT

NOT ALL USE AT

100% AD

NOT STO

BUT CONCEPTUAL

CONCEPTUAL

BEGIN.

CAN.

THEREIN.
CML2 rearranged. 90% "Philadelphia K"

- MIE / I1 NOT
- SDK TOP / NOT

100% 5q / 17p NOT
BCR-ABL FUSION

10% 9q / 22q NOT
BCR-ABL FUSION

Bcr-Abl fusion
Myelofibrosis

- MF
- MF2
- Cytopenia
- Usually not overt
- Extensive fibrosis
- Not IGVH
- Anemia
- Splenomegaly
- Enlargement of spleen
- Anemia
- JAK2
- NCCN
- NCCN guidelines
LANGERHANS & HISTIOCYTOSIS