

Lung Cancer Reference Handout

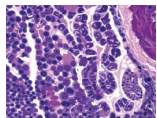
Lung Cancer Dx

1. Non-Small Cell Lung Cancer = NSCLC

Adenocarcinoma

Histology: glandular cells

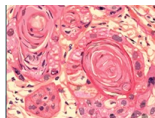
IHC:
TTF+
Napsin+



Squamous

Histology: keratin pearls

IHC:
P40+
P63+



2. Large Cell Lung Cancer = LCLC

* Distinct subtype between NSCLC and SCLC

3. Small Cell Lung Cancer = SCLC

Carcinoid low-grade NET

Atypical intermediate-grade NET

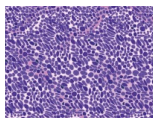
Small Cell high-grade NET



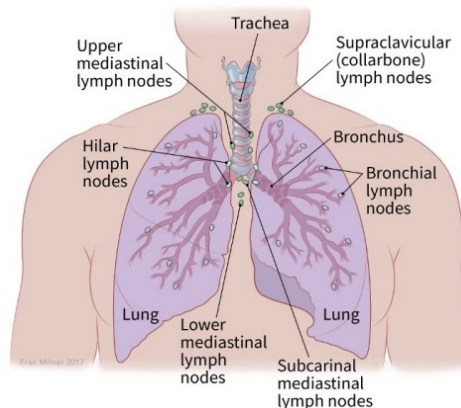
pulmonary
NETs

Histology: small, round blue monotonous sheets

IHC:
Synaptophysin+
Chromogranin+
CD56+



Lung Cancer Staging



NSCLC Staging

Rough Staging Guide NSCLC:

Stage I: T1-T2, N0, M0
Stage II: T1-3, N0-1, M0
Stage III: T1-4, N0-3, M0
Stage IV: M+ (malignant effusions)

NSCLC T Sizes:

T1: 0-3 cm
T2: 3-5 cm
T3: 5-7 cm; multiple nodules same lobe
T4: > 7 cm; ipsilateral multi-lobular nodules

NSCLC N Status:

(N1) Lobar/hilar
(N2) Mediastinal/subcarinal
(N3) Contralateral/supraclavicular

SCLC Staging

Limited (LS-SCLC)

Confined to a radiation field

Extensive (ES-SCLC)

Extends beyond a radiation field

SCLC Tx

Limited Stage SCLC

Ipsilateral Hemothorax: within a radiation field

→ ChemoRT +/- PCI

* Rarely surgery + chemo (T1-T2N0)

LS-SCLC: Platinum Doublet

Cisplatin + Etoposide

Extensive Stage SCLC

NOT within a radiation field

→ Chemotherapy + CPI

ES-SCLC: Platinum Doublet + CPI

Carboplatin + Etoposide

+ Atezolizumab or Durvalumab

Mesothelioma Tx

Resectable, Stage I-III A

Epithelioid, Biphasic

Neoadjuvant chemo → surgery +/- RT

- 1) Neoadjuvant Platinum/Pemetrexed
- 2) Pleurectomy/Decortication
- 3) Consider adjuvant RT

Unresectable (Stage IIIB+)

Epithelioid, Biphasic, Sarcomatoid

Chemotherapy

Platinum/Pemetrexed +/- Bevacizumab

Immunotherapy

Nivolumab/Ipilimumab

Early Stage NSCLC Lung Cancer Tx

Very Early Stage (Stage I-II)

Very Early Stage = Tumor < 4-5 cm, node negative

Surgical Resection (Lobectomy) + Observation

Resectable Early Stage (Stage II-IIIa)

Resectable = non-bulky hilar LN, single station mediastinal LN

Surgical Resection + Neoadjuvant or Adjuvant Platinum Doublet

EGFR+ = Osimertinib x3Y

PDL1+ = Atezolizumab x1Y

PDL1- = Pembrolizumab x1Y

Locally Advanced Unresectable (Stage IIIB-IIIC)

ChemoRT (Platinum Doublet) + Durvalumab x 1Y

Neoadjuvant/Adjuvant/ChemoRT Chemotherapy Regimens

Platinum Doublet

Cisplatin +

Pemetrexed (non-squamous)

Gemcitabine (squamous)

Docetaxel (squamous)

Etoposide (chemoRT)

Paclitaxel/Taxol (chemoRT)

Important Side Effects:

Platins → neuropathy, nephrotoxicity, ototoxicity

Pemetrexed → mucositis (need B12/folate ppx)

Taxanes → neuropathy

All → myelosuppression, alopecia

CPI → dermatitis, colitis, hepatitis, thyroiditis, any "itis"

Metastatic NSCLC Lung Cancer Tx

1. Sequence if Driver Mutation

Driver Mutation Present

No Driver Mutation

→ Targeted Molecular Therapy

EGFR: Osimertinib

ALK: Alectinib, Brigatinib, Lorlatinib

ROS: Crizotinib, Entrectanib

BRAF: Dabrafenib/Trametinib

MET: Capmatinib

RET: Selpercatinib

KRAS: Sotorasib ^{2nd line}

HER2: Enhertu ^{2nd line}

2. Stain for PDL1

PDL1 > 1%

→ CPI monotherapy

→ Carbo Doublet + CPI

PDL1 < 1%

→ Carbo Doublet + CPI

Immunotherapy: Checkpoint Inhibitors (CPI)

PDL1 >1%

Pembrolizumab

Nivolumab/Ipilimumab

PDL1 >50%

Pembrolizumab

Nivo/Ipi

Atezolizumab

Cemiplimab

Carbo Doublet + CPI

Carboplatin + **Pemetrexed (non-squamous)**

Nab-Paclitaxel/Abraxane (squamous)

Paclitaxel/Taxol (squamous)

+ CPI = ex: Pembrolizumab

Maintenance

Consider maintenance IO

+/- Pemetrexed or Bevacizumab