

Case

- 48yo Caucasian F, non-smoker presents with increasing dyspnea
- Physical exam reveals decreased breath sounds over lower ½ left lung field
- Chest x-ray reveals large L pleural effusion
- CT reveals large L pleural effusion with L pleural implants, L hilar and mediastinal LAD, LUL 2.5cm
- PET/CT confirms these are avid, no distant disease

What is your next diagnostic step?

1. Drainage of fluid with cytology and cell button
2. Liquid biopsy
3. EBUS for FNA of nodes
4. CT guided biopsy of LUL lesion

Case

- Pleural cytology reveals adenocarcinoma, TTF1+, Napsin A+, p63-, PD-L1 22C3 75%, but “scant remaining tissue precludes molecular diagnostics”
- Liquid biopsy reveals TP53 mutation and some variants of unknown significance

Next step?

1. Pembrolizumab
2. Carboplatin/pemetrexed
3. Carboplatin/pemetrexed + bevacizumab
4. Carboplatin/pemetrexed + pembrolizumab
5. Further diagnostics

Case

- CT guided core biopsy of primary lesion confirms adenocarcinoma
- Molecular testing reveals an EML4/ALK rearrangement
- PD-L1 testing by 22C3 80%
- MRI brain reveals 2 lesions: 2mm R frontal, 3mm L parietal, both without edema or mass effect (patient asymptomatic)

Next step?

1. Radiation consult for stereotactic radiosurgery, then crizotinib
2. Radiation consult for stereotactic radiosurgery, then alectinib
3. Radiation consult for stereotactic radiosurgery, then pembro
4. Crizotinib, close f/u of brain
5. Alectinib, close f/u of brain
6. Pembro, close f/u of brain

Case

- She goes on alectinib
- Imaging at 6 weeks reveals significant reduction in 2 brain mets, and in primary mass, LAD and pleural fluid
- Imaging q2-3 months shows ongoing PR until 12 months later when primary lesion increases from 1 to 3cm with new L lung nodules ranging from 1-2cm, 2 new R lung nodules, 1-2cm, new R adrenal mass 2.5cm, and reaccumulation of pleural fluid

Next step?

1. Change to chemotherapy
2. Change to immunotherapy
3. Change to chemotherapy + immunotherapy
4. Change to ceritinib
5. Biopsy

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Answer different if

- *Brain-only progression in 1 or 2 spots?*
- *Oligoprogression to adrenal, otherwise stable?*

Case

- Biopsy reveals adenocarcinoma
- PD-L1 by 22C3 85%
- EML4/ALK detected, no ALK resistance mutations
- MRI brain remains stable

Next step?

1. Change to chemotherapy
2. Change to immunotherapy
3. Change to chemotherapy + immunotherapy
4. Change to ceritinib