Pulmonary adenocarcinoma with brain metastasis and good survival with TKI therapy
DISCLOSURE OF INTEREST

- None to disclosed
Mrs. MM, 51 yo: Health history

- **April 2017:** Main complaint: 3 days incapability for daily activities because of vertigo. Mild symptom since late 2016.
- **PMH:** March 2017 earlier: The lady have chronic dry cough for 1 month, thorax X-Ray revealed a solitary lesion in left upper pulmonary field.
  - Deferring consultation concerning dry cough since Nov 2016, she worried after **severe vertigo** developed
  - Other history was unremarkable
Initial investigations

- May 5, 2017
- May 8, 2017
- May 9, 2017

- 3.1 x 2.3 x 2.4 cm
- 2.9 x 3.2 x 3.0 cm
Further studies and treatment

- Histopathology from supraclavicular lymphadenopathy: **metastatic adenocarcinoma**
- Immunohistochemistry:
  - CK7 (+); CK 20 (–)
  - TTF-1 (+)
  - Thyroglobulin (–)
Staging: T2a N3 M1c

- May 5, 2017
- May 8, 2017
- May 9, 2017

○ 3.1 x 2.3 x 2.4 cm
○ 2.9 x 3.2 x 3.0 cm
Further studies and treatment

- Histopathology from supraclavicular lymphadenopathy: metastatic adenocarcinoma
- Immunohistochemistry:
  - CK7 (+); CK 20 (-)
  - TTF-1 (+)
  - Thyroglobulin (-)
  - PD-L1 (1+)
- EGFR mutation: deletion in exon 19
- FISH result: ALK (-), ROS1 (-), MET (-), RET (-)

- She performed gamma knife surgery in May 29, 2017
- Started on Erlotinib 150 mg qd since June 27, 2017
Follow-up study

Post gamma knife

- Sept 6, 2017

March 2018: PET/CT showing several metabolic improvement

1.6 x 1.3 x 1.4 cm
Case presentation Cont’d

- Restaging after 3 months: \( \varnothing 1.7 \times 2.1 \times 1.8 \text{ cm} \)
- Partial response (41% decrease by RECIST 1.1)
  - Decrease of the size of the primary tumor
  - Decrease of the size of the lymph nodes
Progression and treatment

- Sept 12, 2018 there was **new supraclavicular lymphadenopathy**
- Histopathology from the biopsies showing recurrence and **new EGFR mutation in exon 20 T790M**.

- Erlotinib was subsequently switched to **Osimertinib 80 mg qd from Oct 8, 2018 until today**

- June 15 – 26, 2019: Present her research in Tokyo University
- Latest imaging studies are shown:
  - ∅ 1.6 cm
  - ∅ 1.5 cm
Summary

Nov 2016: Clinical symptom

March-April 2017: CXR: Lung nodule (+) Vertigo

May 2017: Brain + liver mets NSCLC IVB EGFR mut (+) exon 19 del

Sept 2018: New supraclavicle lymphadenopathy EGFR mut (+) ex. 20 T790M

Nov 2019


ESMO PRECEPTORSHIP PROGRAMME
Thank you for your attention