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Prolonged tumor response and quality of life in an elderly woman with Lung Adenocarcinoma treated with Pembrolizumab

Disclosure

- No conflicts of interest.

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CLINICAL CASE:



- **IDENTIFICATION:** MIGSB, 81 year old woman, widow, retired
- **PAST MEDICAL HISTORY:**
 - Bradycardia
 - Arterial Hypertension
 - Dyslipidemia
 - Hiatal Hernia
 - Glaucoma
- **CHRONIC MEDICATION:** - Polypharmacy...
- **Habits:** - Non-smoker

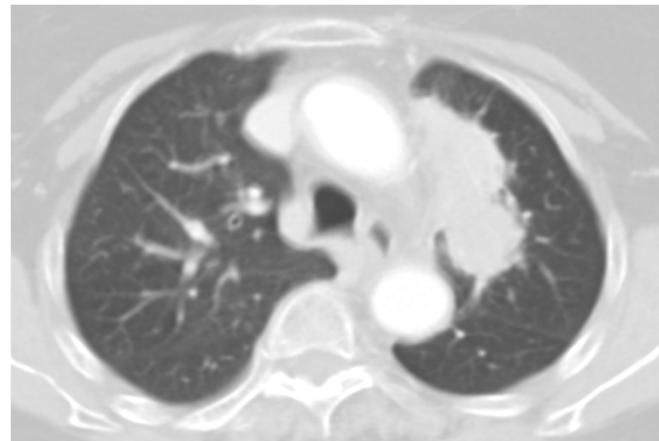
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OCTOBER 2016 TO
FEBRUARY 2017

- Bronchopneumonia treated with antibiotics
- Fatigue, anorexia, dorsal pain

MARCH 2017

- Tests:
 - **Thorax CT**: 6x5x2 cm mass in the upper left pulmonary lobe invading the pleura, pulmonary left artery and aorta; collapse of the upper left lobar bronchus
 - **Spine / Cranial CT**: no metastasis
 - **Bronchoscopy**: biopsy of mass



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APRIL 2017

- **MDT Meeting:**

LUNG ADENOCARCINOMA EGFR WILDTYPE (ALK UNSATISFACTORY SAMPLE; PD-L1 ONGOING), cT4N2M0 – stage IIIB

- Unfit for 1st line therapy with Chemotherapy/Radiotherapy
- **Evaluation for systemic therapy**

MAY 2017

- **Medical Oncology consultation:**

- Performance status: **ECOG PS 0** with good cognition status, capable of making decisions about treatment
- Health condition: **good overall health condition**; echocardiogram showing good global systolic function; holter EKG showing asymptomatic bradycardia
- Nutrition and physical activity: BMI = 26,41 Kg/m²; light housework
- Physical examination: unremarkable

- **Start of Vinorelbine 60 mg/m², with 25% dose reduction (45mg/m², 60 mg, oral, weekly, 3 weeks ON → 1 week OFF)**

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MAY TO AUGUST
2017

- Maintained treatment with **Vinorelbine** in a total of **3 cycles**:
 - Controlled pain; ECOG-PS 0
 - Mild toxicities, manageable (grade 1-2: nausea, constipation, fatigue, creatinine elevation, edema of lower limbs, alopecia)
- End of May 2017 - **PD-L1 = 70%** (highly positivity):
 - Patient **accepted change to Pembrolizumab**
 - Treatment with Vinorelbine until anti-PD-L1 authorization

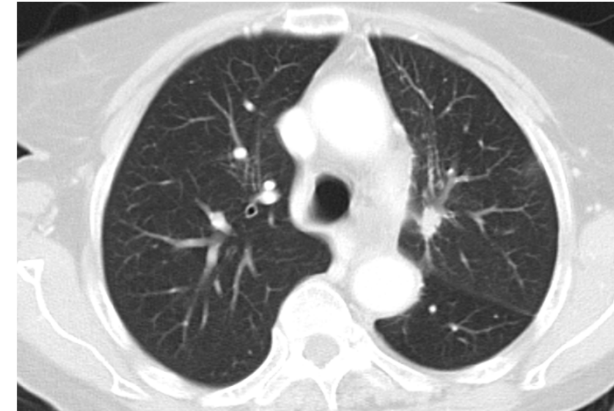
AUGUST 2017 TO
MARCH 2018

- **Start of Pembrolizumab 2mg/kg** (88 mg every 3 weeks)
 - Manageable toxicities: **hepatitis G1**; **symptomatic hypothyroidism** treated with levothyroxine; **weight loss G2** (14%)
 - Maintained good performance status with **ECOG PS 0-1** and good overall health status
 - Thorax CTs: good response with **reduction of tumor size**

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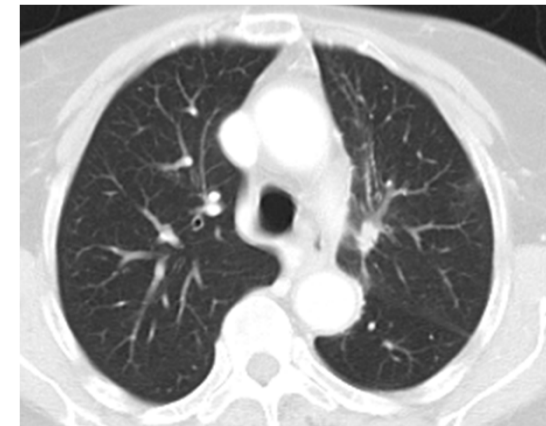
MARCH 2018

- Thorax CT: **complete imagiologic response** after 9 cycles
- Treatment continuation



MARCH TO
OCTOBER 2018

- Maintained manageable toxicities (hypothyroidism treated with levothyroxine); weight gain
- Maintained **ECOG PS 0-1** and **good overall health status**
- Thorax CT (August 2018): **maintained complete response**
- **Total of 18 cycles** (as of 26/10/2018)



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DISCUSSION:

- **Our patient:**
 - unfit for Chemotherapy/Radiotherapy but **fit for Immunotherapy** → **different but not negligible toxicity spectrum**;
 - deciding between **200 mg vs 2 mg/kg** in elderly patients with low weight;
 - deciding **how long to treat with pembrolizumab**.
- **Advanced age:**
 - important **risk factor for cancer**;
 - changes in the immune system probably linked to the increased incidence of cancer;
 - growing number of elderly patients with good overall health status diagnosed with cancer.
- **Numerous clinical trials evaluating Immune Checkpoint Inhibitors:**
 - **small number of elderly patients** included;
 - **inconsistent results** in the elderly;
 - lack of report of age-specific outcomes.
- **More information** needed about **efficacy, safety and toxicity** in this population.



Thank you for your attention!