THE AMAZING CASE RACE

CASE STUDY 02

2023 ACADEMY

IASLC

INTERNATIONAL ASSOCIATION FOR THE STUDY OF LUNG CANCER

The management of care for the lung cancer patient diagnosed during pregnancy

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LEARNING GOALS

Goal 1: Understand the staging modalities that are safe during pregnancy.

Goal 2: Recognize which lung cancer treatment can be safely administered vs those contraindicated during pregnancy.

Goal 3: Appreciate the challenges involving choice of treatment during pregnancy, timing of delivery, and post-partum care while finding the delicate balance between maternal benefit and fetal risk.

Goal 4: Recognize the importance of excluding placental metastases and monitor for rare occurrence of vertical transmission.

Goal 5: Multidisciplinary management in a tertiary unit with obstetrics and neonatology support is key for successful management of these complex cases.

BACKGROUND

Mdm C is a 34-year-old Chinese woman, who is a life-long non-smoker with no prior past medical history of note. She is currently pregnant at week 28 of gestation (G1PO).

The patient had an uneventful antenatal follow-up and fetal scans earlier showing normal growth of the fetus with no fetal anomalies.

She presented with breathlessness for 2 weeks and a cough for 1 month that did not resolve despite a course of antibiotics.

The patient was hypoxic, requiring IN02 2L/min.

Due to these symptoms, she was admitted to the ER.

Examination revealed an enlarged left supraclavicular lymph node 2cm in size.

COVID screening was negative.

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TREATMENT

- IN02 2L/min for hypoxia
- IV Augmentin and treated empirically for community acquired pneumonia.

COMORBIDITIES/MED HX

- Nil
- Disease burden is high, resulting in hypoxia, necessitationg early treatment initiation for her lung cancer.

OVERALL DIAGNOSIS

Newly diagnosed lung adenocarcinoma in a pregnant patient, currently at 28 weeks of gestation, with high disease burden.

Figure 1

Induced sputum work-up negative for pulmonary tuberculosis.

ECG: NSR with no right heart strain.

TESTING

Clinical examination revealed an enlarged left supraclavicular lymph node 2cm in size with reduced air entry in the left upper lobe.

Chest X-ray showed a left hilar lesion and a mass in the right lower lobe (***Figure 1***).

IR guided biopsy of the left supraclavicular lymph node revealed metastatic adenocarcinoma (TTF - 1 positive, p40 negative).

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STAGING CONSIDERATIONS

Imaging modalities that are safest in pregnancy Ultrasound and MRI (without contrast). PET CT and CT pelvis are contraindicated with the highest fetal radiation dose. Iodinated contrast could cross the placenta in animal studies but did not show teratogenicity, data in humans are however lacking.

Gestational age also plays a key role, with the fetus being most-sensitive to radiation up to week 16, during which they are at risk of fetal malformations or CNS anomalies. When proper abdominal shielding is employed, imaging should not be withhheld if it is necessary for oncological management of patient.

STAGING SCANS

In this case, the gestational age is 28 weeks (trimester 3). Given minimal risk to the fetus, contrasted CT Thorax and CT brain with abdominal shielding were performed to help stage the patient's cancer.

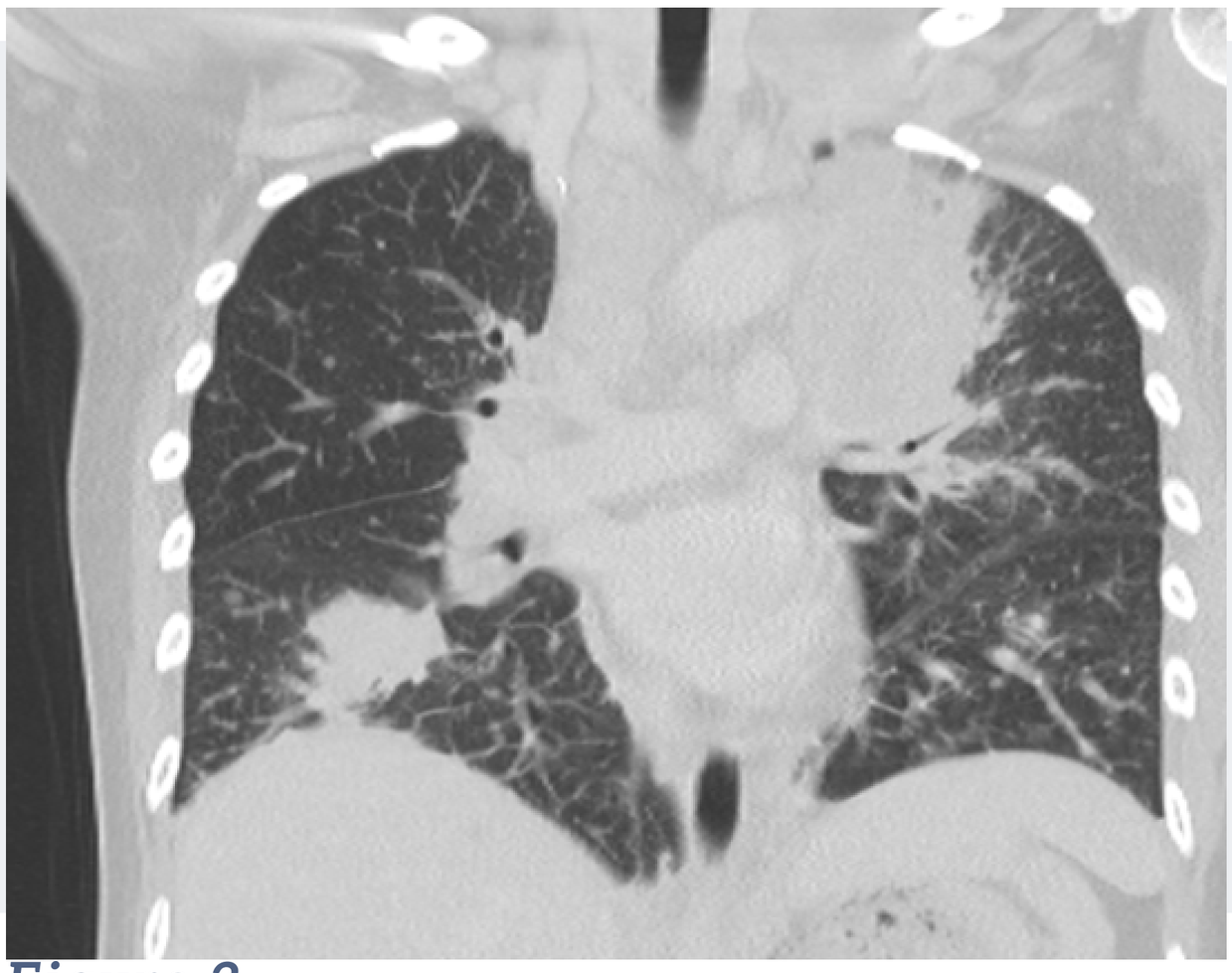

Figure 2

CONTRASTED CT BRAIN

Scan was normal.

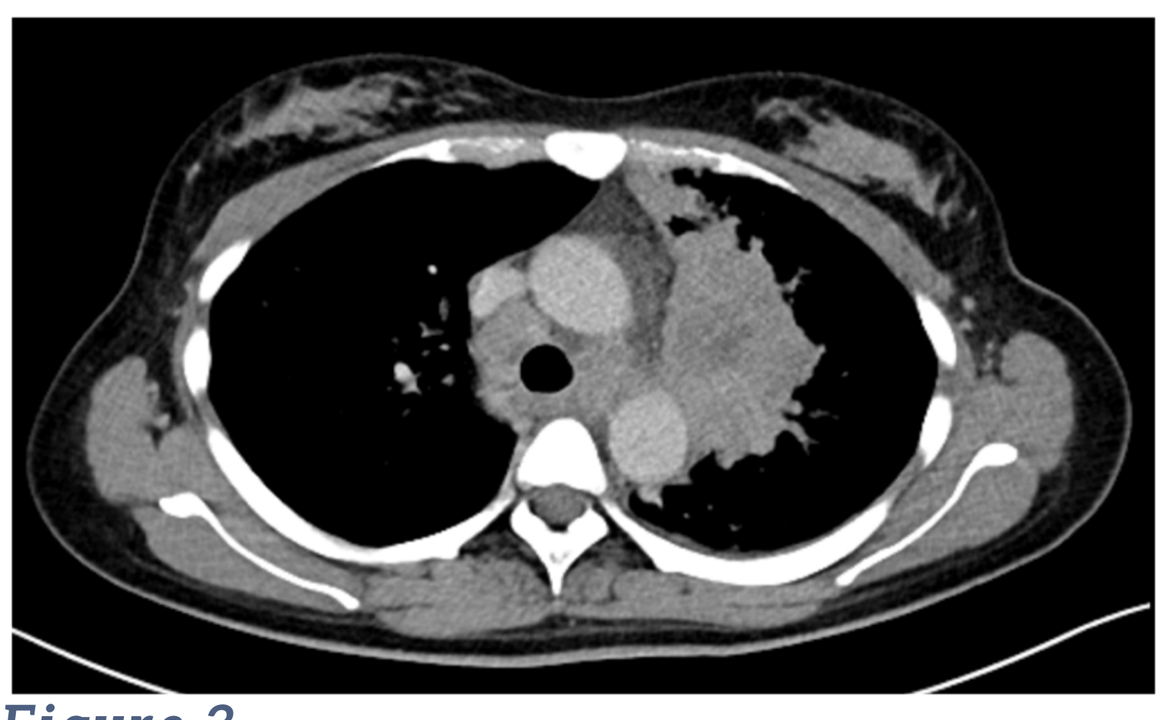

Figure 3

CONTRASTED CT THORAX

Scan showed an irregular soft tissue mass measuring 9.3 x 4.7 x 7.1 cm seen centered in the upper lobe abutting the mediastinal pleura, involving the left perihilar region and superior seqment of left lower lobe with multiple satellite nodules scattered in both lungs. Small left pleural effusion. There are also enlarged mediastinal, left hilar and left supraclavicular lymph nodes..

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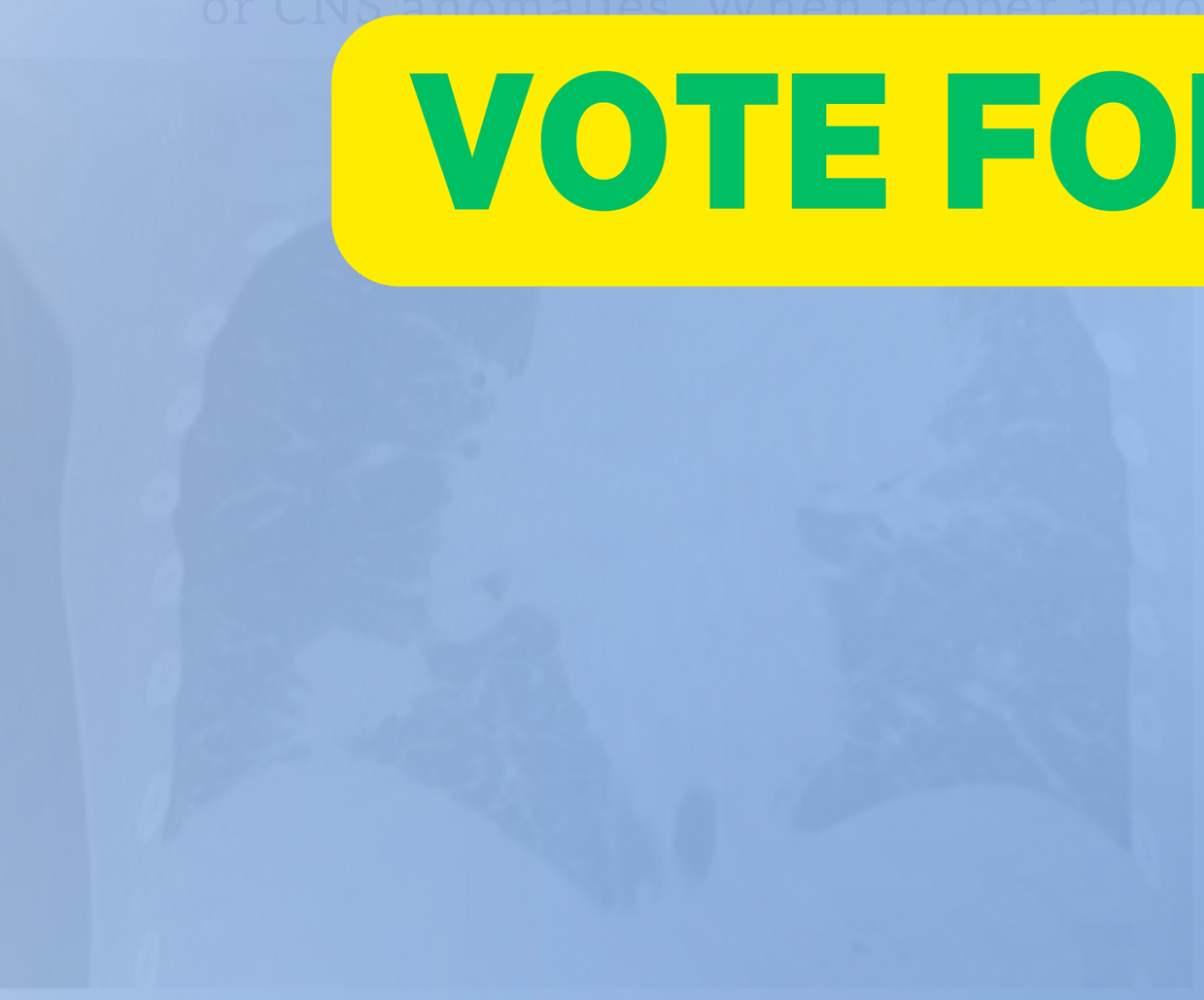
VOTE FOR CASE 02



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