O05 A gravida with synovial sarcoma heart and lung metastasis received emergent cesarean section – case report

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Synovial sarcoma is a rare malignant tumor and it metastasizes most likely to lung. Metastatic synovial sarcoma of the left atrium is extremely rare.

Here we report a 32-year-old female with 34 weeks gestation, who had a past history of left foot synovial sarcoma underwent operation and radiotherapy three years ago. Cough with occasional blood tingle sputum was noted 5 months ago. Chest X-ray showed a mass (73x67 mm) over left middle lung field and it was suspected a synovial sarcoma with lung metastatsis. She refused aggressive treatment. This time she was sent to ER because of sudden onset of conscious disturbance. At ER, Brain MRI revealed right MCA territory infarction and she was admitted for further treatment. After admission, adequate iv hydration and anti-coagulant agents were administered. Bilateral cold feet without palpable dorsal pedis artery pulse and D-dimer 5565 ng/ml were noted. Shortness of breath happened and diffuse emboli state or pulmonary embolism was suspected. Chest X-ray showed massive pleural effusion over left lower lung field. Because of immediately respiratory failure and fetal distress, an emergent Caesarean cesarean section was arranged. In operating room, her vital sign were BP 145/96 mmHg, HR 130 bpm, and SpO2 83% at room air. With adequate preoxygenation, rapid-sequence-induction was performed with etomidate 12 mg, and succinylcholine 90 mg intravenously. Swan-Ganz and arterial line were set. The anesthesia was maintained with 1.5% sevoflurane and nitrous oxide/oxygen(1/1). A healthy boy was delivered. Cardiac output was about 2.8 l/min pulmonary artery pressure and wedge pressure were about 50/30 mmHg and 25 mmHg, respectively. TEE was performed and a mass in the left atrium was found. Ejection fraction was about 40%. For low cardiac output and pulmonary hypertension, continue infusion of dobutamine 3 g/min/kg and morphine 4 mg were administered. Then her pulmonary artery pressure and wedge pressure dropped to 35/22 mmHg and 20 mmHg, and cardiac output returned to 4.0 l/min. After surgery, the patient was brought to surgical intensive care unit with stable vital signs for further treatment. The aim of preoperative assessment is to survey the causes of young stroke, especially cardiac sources, and pulmonary embolism. Diagnostic imaging including chest radiographs, electro- cardiograms, computed tomography and MRI play a crucial role in establishing or excluding the diagnosis. But this is limitated to pregnant patients and our case was in an emergent situation.

The anesthetic management of pulmonary hypertension that may lead to respiratory failure and shock must be taken into consideration. Swan-Ganz was set for monitoring pulmonary artery pressure, wedge pressure and cardiac output. TEE can identify tumor involvement of the valves and their competency, ventricular function, and intracavity masses. Vasodilators or calcium channel blockers were not suitable for reducing pulmonary hypertension due to poor cardiac output, but morphine could be used during cardiogenic shock. Nitrous oxide inhalation also could be used to reduce pulmonary hypertension.