EMBOLIZATION OF PULMONARY ARTERIOVENOUS MALFORMATION AFTER HEMATOTHORAX IN PREGNANT WOMAN

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Background:

Pulmonary arteriovenous malformations (PAVMs) are abnormal direct communications between pulmonary arteries and veins which result in a right-to-left shunt. The incidence is around 2.5/100 000 and more than 80% are congenital. Although they may increase in size, they are always benign and present as single or, more often, multiple simultaneous lesions. PAVMs are associated with substantial morbidity and mortality mainly from the effects of

paradoxical emboli. Potential complications include stroke, cerebral abscess, pulmonary haemorrhage and hypoxaemia. We present a patient in whom PAVM was successfully treated with endovascular intervention.

Conclusion:

PAVM is best managed with an interprofessional team approach. Endovascular therapy is a mainstay of PAVM treatment, and for the best results it is optimal to refer the patient to a center that has expertise in PAVM.

Case:

A 28-year-old female was hospitalized to the Clinical Hospital Center Zagreb due to respiratory failure caused by hematothorax in the left chest. She was 26 weeks pregnant, at that time. A thoracotomy was performed. Suspected PAVM of the lower lung lobe was excised, with hematoma evacuation, followed by recovery with a mechanical ventilator, then high-flow oxygen. She gave birth at term 3 months later, by caesarean section. In May 2022, a computed tomography (CT) pulmonary angiogram was performed. A condition after partial resection of the left lower lobe PAVM, with two other smaller PAVMs in the same lobe and in the right lower lobe were described. Spirometry, lung diffusion capacity, arterial blood gas analysis and cardiac ultrasound were normal. In her family history, she stated that her father had PAV with fatal bleeding, which supports a congenital etiology. Digital subtraction angiography was performed. PAVM of the superior segment of the lower left lobe was embolized with coils. The procedure was uneventful, and the patient was discharged home.


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