IMAGING CARDIOVASCOLARE *60*
IMAGING MULTI-MODALE / IMAGING IBRIDO ***(IMAGING CARDIOVASCOLARE)***
RISONANZA MAGNETICA CARDIOVASCOLARE (CMR) ***(IMAGING CARDIOVASCOLARE)***
GRAVIDANZA E CARDIOPATIA ***(CARDIOPATIE CONGENITE E MALATTIE DEL CIRCOLO POLMONARE)***
CARDIOTOSSICITA' DA FARMACI ***(CARDIO-ONCOLOGIA E CARDIO-TOSSICITA')***

PRIMARY MEDIASTINAL LARGE B-CELL LYMPHOMA: HOW TO MANAGE IT DURING PREGNANCY

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A 33 years old patient came to our attention, pregnant in her 26th week. She had dyspnoea, cough and weight loss (up to 45 kg of weight) in the previous two weeks. During urgent gynecological check-up she was found in poor general conditions, tachypnoic (respiratory rate> 30 acts /minutes) with pale skin and bilateral jugular turgor. There was nothing relevant in her past medical history except for a thrombocytopenia appeared two months before. She consulted a hematologist who recommended to look for JAK2 mutation that was excluded. Echocardiography revealed a voluminous hypoechoic mass extrinsically imprinting the roof and the anterior wall of the right atrium that also involved inferior vena cava as a sleeve; a flow acceleration with an average gradient of 6 mmHg was documented at the level of right lower pulmonary vein and a possible infiltration of atrial wall was seen. Left ventricle was normal in size and kinesis; right ventricle also showed preserved contractility of the free wall with reduction in the distal outflow portion due to diffuse soft thickening that surrounded this portion and that extended cranially towards the trunk of pulmonary artery and ascending aorta. There also was a layer of circumferential pericardial effusion, apparently organized, with irregular profile of visceral pericardial sheet adjacent to diaphragmatic wall of right ventricle. On chest contrast computed tomography (CT) a voluminous mediastinal solid mass (13 x 16 x 18 cm) was confirmed with inhomogeneous enhancement for central necrotic components determining complete atelectasis of middle and upper right lung lobes and compression of superior vena cava, of some branches of pulmonary artery and ipsilateral pulmonary veins too; supra-aortic trunks and aorta were surrounded by the mass but open; the mass enveloped the right posterolateral area of the heart, displacing it to the left and compressing right atrium with apparent pericardial infiltration. Moreover there were approximately 16 mm of pericardial effusion and multiple mediastinal adenopathies. A chest and abdomen magnetic resonance confirmed the presence of the known voluminous heteroplastic formation occupying almost all right hemithorax, indissociable from the pericardium, with compression of right heart chambers and cavae veins. A thoracic biopsy of mediastinal mass was urgently performed under ultrasound guidance and followed by systemic steroid therapy. Histological examination showed off the diagnosis of primary large B cell lymphoma of the mediastinum (PMBCL, according to WHO classification 2016). A steroid therapy and chemotherapy cycles were started (Cyclophosphamide-Hydroxydaunorubicin-Oncovin-Prednisone - CHOP scheme). On the second day after chemotherapy, we saw a sudden worsening of clinical conditions: the patient had severe respiratory distress and signs of low cardiac output such as hypotension, elevated heart rate, increased blood lactates, low venous oxygen saturation (SVO2 45%), and elevation N-terminal prohormone of brain natriuretic peptide (NT-proBNP); she was therefore admitted to intensive care unit (ICU) where a gradual optimization of haemodynamic parameters. Then she underwent a second cycle of chemotherapy: dose-adjusted etoposide, prednisone,

vincristine, cyclophosphamide, doxorubicin, and rituximab (EPOCH-R) and was then successfully discharged. In such cases a careful evaluation and balancing of both haematological and gynecological-obstetric aspects is needed and it requires a multidisciplinary team approach in order to identify the best diagnostic and therapeutic pathway and, most of all, the best timing for delivery depending on gestational age.