

MR Imaging features of Fetal Mediastinal and Intrapericardial Teratomas

*Eva Rubio*¹, Beth Kline-Fath², Maria Calvo-Garcia², Carolina Guimaraes²

¹Children's National Medical Center, Washington, ²Cincinnati Children's Hospital Medical Center, Cincinnati (United States)

Fetal mediastinal or intrapericardial teratoma is a relatively rare diagnosis and carries a grim prognosis. As many fetal imagers have not encountered this entity in their practice, this poster presentation will review the diagnostic pitfalls, imaging features and outcomes in 3 cases of fetal mediastinal/intrapericardial teratoma as imaged by fetal magnetic resonance imaging (MRI). Fetal lung lesions are fairly common. It is not surprising that it is typical for a fetus with a mediastinal or intrapericardial teratoma to have been referred to a tertiary center with a presumed diagnosis of a lung lesion with high risk imaging features. Therefore, the imaging features characteristic of mediastinal or intrapericardial teratomas are worth reviewing, as the clinical management, prognosis and family counseling for mediastinal/intrapericardial teratomas and lung lesions are vastly different. While some of the imaging features of a teratoma may overlap with lung lesions (cysts, septations, fetal hydrops, vascular supply), there are other imaging features which are useful in distinguishing the two entities, such as the direction of displacement of the heart and components of fat and/or hemorrhage. The importance of correct diagnosis lies in the different management, family counseling and prognosis. Lung lesions may respond to steroid therapy, and follow an expected trajectory of growth with subsequent plateau. Prognostic features of lung lesions are thoroughly described in the medical literature, and the majority have a good prognosis. In contrast, fetal mediastinal/intrapericardial teratomas are not expected to respond to steroid therapy, continue to enlarge and have a dismal prognosis. An accurate diagnosis prepares the family and eschews unnecessary therapies.