

## MP4-12

### Foetal intrapericardial Teratoma: relevance of the EXIT strategy

Quarti A., Iezzi F., Pozzi M.  
*Pediatric And Congenital Cardiac Surgery and Cardiology*  
*Ospedali Riuniti, Ancona, Italy*

#### Introduction:

Teratoma is a neoplasm with derivatives from multiple germinal layers. Despite it has been described in many body sites, its presentation inside the pericardium is rare and often fatal. The foetal ultrasound, and an accurate decision plan, are of great importance to increase the chance of survival for the newborn. The EXIT strategy can be used to assist the baby during the neoplasm removal.

#### Methods:

A 31 year-old gravida 1, presented at our Institution with a 30 week foetus having a pericardial mass. An ultrasound revealed that the mass was heterogeneous and produced a complete right atrium collapse. A foetal magnetic resonance was deemed necessary. It showed the presence of cystic cavities, vessels and soft tissue, making the diagnosis of foetal Teratoma more likely. A multidisciplinary team work plan was outlined. The mother was closely monitored and the foetal ultrasound was repeated once a day. In the first week the mass showed increase in its size and the pericardial effusion became significant. The team was concerned of potential cardiac tamponade physiology and a pericardiocentesis was considered to be potentially dangerous for the baby. In the end, it was decided to proceed to a caesarean section. It was judged that the use of an Ex Utero Intrapartum Treatment (EXIT) was the safer way to treat the baby.

#### Results:

The mother was taken to the operating room and an additional surgical bed was prepared next to the mother for the newborn. A 2 kg baby was delivered via cesarean section and intubated prior to cutting the umbilical cord. As expected, the baby experienced a severe cardiac tamponade physiology. A sternotomy was rapidly performed. The tumor was easily identified attached to the aorta. It was carefully removed and the right atrium immediately reached a normal shape. The subsequent clinical course was uneventful. The histology revealed that the mass was effectively a Teratoma.

#### Conclusions:

Since the tumor is benign in origin, the treatment of choice is surgical removal. Early ultrasound and MRI could optimize the timing of the removal. The EXIT strategy is helpful in order to minimize the surgical risk.