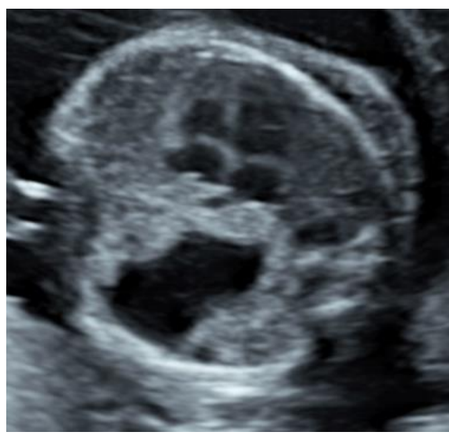
To evaluate the antenatal and postnatal course of Congenital Pulmonary Airway Malformations (CPAM)



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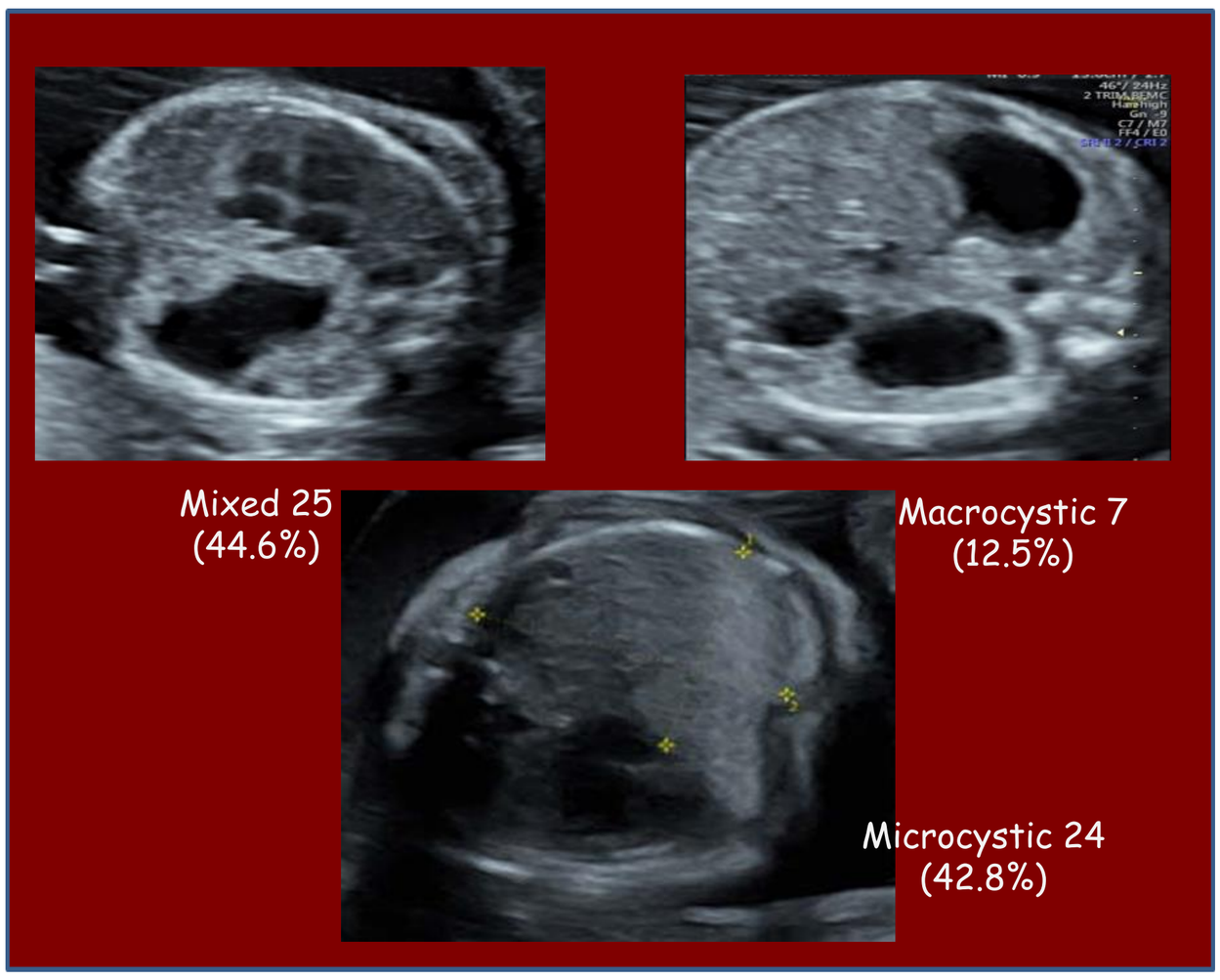
Objectives: To study the antenatal and postnatal outcome in the fetuses with congenital pulmonary airway malformations (CPAM)

Methods:

- A retrospective study from Jan 2012 to August 2017 of all fetuses who were confirmed to have CPAM was carried out
- A detailed history and Ultrasound findings were recorded. CVR was calculated
- All the scans were performed by FMF certified operators for the assessment

Results:



CVR < 1.6 with follow up	37
Antenatal resolution	35 (94.6%)
CPAM volume increased	2 (5.5%)

- CPAM was diagnosed in 56 fetuses. The mean gestational age at diagnosis was 23 weeks (18 – 34 weeks). Mediastinal shift was seen in 20 (35.7%) fetuses. Of the 5 terminations, 3 (5.4%) had associated structural anomalies and 2 had hydrops.
- CVR was available in 43/ 56 fetuses, of which 2 had a CVR of more than 1.6. Of these, 1 had associated anomalies and hence terminated. In the other fetus the CPAM resolved by the end of the pregnancy

- Of the 2 fetuses that did not resolve, one developed pleural effusion after birth that required to be tapped. Subsequently the baby recovered with no residual damage.
- The other baby in whom antenatal resolution was last seen at 31 weeks, developed hydropneumothorax postnatally and succumbed within one week of life.

Conclusions

- Majority of the babies with CPAM have a good outcome with little postnatal residual damage
- Even if the CVR is less than 1.6 with or without signs of resolution on the antenatal scan, small proportion of babies can develop complications postnatally. Hence, a close surveillance is mandatory.

References

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Hellmund A et al. (2016) Prenatal diagnosis and evaluation of sonographic predictors for intervention and adverse outcome in CPAM. PLoS ONE 11(3):e0150474. doi:10.1371/journal.pone.0150474

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