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Perinatal outcome with congenital pulmonary airways malformation

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Objective

To establish the prognosis in cases of congenital adenomatoid malformation (CAM) by the congenital pulmonary airways malformation volume ratio (CVR), counseling patients about the prognosis, offering medical treatment or drainage as feasible and recording the antenatal course and perinatal outcome.

Methods

This is a retrospective analysis of the cases of congenital pulmonary airways malformation (CPAM) seen at our unit over the last two years. All antenatally diagnosed cases of CPAM over the last two years were followed up through antenatal period and delivery and perinatal outcome was noted. All cases were diagnosed by antenatal ultrasound and classified into macrocystic, microcystic and mixed varieties. Medical treatment with antenatal corticosteroids was offered to all cases with CVR >1, Cyst drainage of dominant cyst was offered to macrocystic CPAM with CVR>1. 6 and every case was followed till delivery and after birth outcomes were taken by telephonic interview.

Results

We had 28 cases of CPAM seen between March 2016-March 2018. Classification: Type: Macrocystic 5, microcystic 22, mixed 2 Lateratility: Bilateral 2, Unilateral 26 Association with other fetal anomalies: 2. Isolated 26 Follow up of pregnancy: Termination of pregnancy 5 (2 with associated anomalies, 3 due to anxiety), continued 21 Development of polyamnios in isolated cases that continued: 11/21(52. 3%) - mild - moderate, none needed amniodrainage Medical therapy with antenatal corticososteroids offered and accepted: 7 cases - no complications Cyst drainage: 2 cases. One resolved, one had a refilling and a sclerosing agent was injected. The microcystic variety underwent almost complete resolution by the time of delivery in 16/19 (84. 2%). In 3 cases it resolved partially with some lung echogenicity seen till the last antenatal assessment near term. Two of those have had a favourable outcome and one case is ongoing. 16 out of 21 cases (76. 2%) with CPAM that continued had term live births and no major neonatal complications.

Conclusion

Antenatally diagnosed CPAM which is isolated and has a low CVR (<1. 6) has a good perinatal outcome. The acceptability of medical treatment in cases of CVR>1 was very good and the outcomes were favourable. However we cannot comment on whether there was a significant benefit from this treatment as no control group was implicated in the trial. There was no obvious harm. Cyst drainage helped in macrocystic cases with high CVR. Polyamnios was the most common antenatal complication but it was self limiting in all cases. None of our cases had neonatal respiratory complications.