# Long term outcome after fetal therapy for thoracic abnormalities

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## Objective

To evaluate the long-term outcome after fetal therapy for fetal pleural effusion (FPE), congenital cystic adenomatoid malformation (CCAM) and bronchopulmonary sequestration (BPS).

## Methods

Retrospective evaluation of children with primary hydrothorax, CCAM or BPS treated with either thoracoamniotic shunt placement or laser ablation of the feeding vessel in BPS at our fetal treatment center between 2001 and 2015. All children with fetal hydrothorax, CCAM and BPS treated with thoracomaniotic shunting or laser occlusion of the feeding vessel of BPS that were older than 2 years of age were invited for a follow-up visit. The visit included a medical history, neurologic examination, assessment of cognitive and motor outcome and assessment of behavioural problems.

## Results

In the study period 60 fetuses with congenital thoracic abnormalities were treated antenatally at our center. All fetuses had signs of hydrops at the time of intervention. 46 fetuses with FPE and 8 fetuses with CCAM were treated with TA-amniotic shunt placement. Of the 6 fetuses with BPS, 2 were treated with TA shunt placement and 4 with laser coagulation of the feeding vessel. Of the 38 surviving infants, 28 were older than 2 years of age and eligible for inclusion. 22 children were tested. 15/22 (68%) had no significant respiratory problems in the history, 5 (23%) had mild reversible airway obstruction and 2 (9%) had severe respiratory problems. The incidence of neurodevelopmental impairment was 2/22 (9%). There were no cases of cerebral palsy.

## Conclusion

Long term follow-up of children after fetal therapy for thoracic abnormalities shows severe respiratory problems in a minority of patients, mostly related to preterm birth. Severe neurodevelopmental impairment is also uncommon.