Objectives
To investigate the prenatal sonographic characteristics and clinical outcomes of fetal congenital lobar emphysema (CLE).

Methods
A retrospective analysis was done to demonstrate the prenatal sonographic characteristics of 19 children diagnosed as CLE after birth by CT and postoperative pathology from January 2011 and May 2017. The clinical outcomes were followed up.

Results
19 patients were diagnosed with CLE after birth, whose prenatal ultrasound manifest hyperechoic masses in the fetal chests, 8 cases were found with multiple cystic echo in the masses. 16 cases occurred in the upper lobe. 16 cases were detected with compression and shift of the heart, and 1 case were found fetal ascites. No aortic blood vessel but pulmonary arteries that supplied blood to the masses were found in all the cases. The average congenital Cystic Adenomatoid Malformation (CCAM) Volume Ratios (CVR) were 1.1 between 23-26 gestational weeks. All the babies were delivered naturally or by caesarean between 33-40 weeks of gestations. 4 babies had respiratory distress immediately after birth and 1 baby had acute respiratory distress after 1 month. All cases were diagnosed as CLE by CT, surgical operation and pathology, in which 8 cases combined with multiple cystic echo prenatally were found to be both congenital cystic adenomatoid malformation and CLE by pathology.

Conclusions
It was difficult to distinguish between CLE and CCAM prenatally, especially CLE could associate with CCAM. When the mass was supplied by pulmonary artery, located in the upper lobe, occupied the whole lobe and whose CVR was above 1.0, it should be more vigilantly suspected the possibility of CLE.