Management for intradiaphragmatic extralobar pulmonary sequestration-Pediatric thoracoscopic surgery postnatal and prognosis

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Purpose: To evaluate the surgical management of intradiaphragmatic extralobar pulmonary sequestration (IDEPS): Complete video-assisted thoracoscopic surgery (cVATS), video-assisted mini-thoracotomy surgery (VAMT) and thoracotomy.

Methods: Here, we report the largest series of patients with IDEPSs in all bronchopulmonary sequestration cases from March 2011 to Sep 2015 (17 cases) and analysis of the surgical treatment. We retrospectively reviewed cases of bronchopulmonary sequestrations (BPS) diagnosed in our hospital from March 2011 to September 2015, in order to identify patients with IDEPS. Diagnosis of IDEPS was confirmed using prenatal doppler ultrasound, postnatal intravascular enhanced computed tomography, and surgery. Experience of surgical treatment was summarized by comparing the cVATS, VAMT and thoracotomy.

Results: The 17 cases diagnosed with IDEPSs were confirmed with histopathology. In our first case, we did not find any mass from abdominal surgery, and then we turned to transthoracic surgery. 6 patients underwent thoracotomy, and 6 cases underwent cVATS; 4 cases underwent VAMT. All surgeries succeeded. MRI prenatal showed a homogeneous mass (2.72 x 2.38 x 4.24 cm) between the diaphragm and the left kidney. It demonstrated high signal intensity on FIESTA and low signal intensity on FIRM. The margin of mass was still clearly defined. Flow empty phenomena were detected. The left adrenal gland was compressed and displaced downward. CT postnatal showed the mass behind the liver, upon the kidney.

Conclusions: IDEPS is a rare type in BPS. It would be better to approach through the chest. Thoracoscopy is safe and effective by experienced surgeon.

Biography
Hongchun is Pediatric Surgeon in Guangdong Women and Children Hospital and Health Institute. He completed Master of Medicine from Guangzhou Medical College. He is the Director of Pediatric Thoracic Surgery. His team worked in the field about Fetal Medicine, especially for birth defect and pediatric surgery postnatal (Complete Video-Assisted Thoracoscopic Surgery) especially for respiratory system, like CCAM and BPS. He has published more than 20 papers in reputed journals.

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