IS-017
Prenatal detection of pyriform sinus cyst: A case report

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Purpose: To report a case of prenatal detection of pyriform sinus (PS) cyst.
Case: Prenatal ultrasonography in a 34-year-old woman at 23 weeks gestation, showed the fetus had a 7x8x6cm hypoechoic cystic left neck mass. Fetal MRI indicated that the fetus probably had PS cyst, lymphangioma or lateral cervical cyst. Sixteen weeks later, a healthy boy weighing 2880g was born vaginally with a 7x8cm cystic swelling of the left neck. Chest and neck x-rays showed an air fluid level in the cyst, suggesting communication with the pharynx. Endotracheal intubation was required 6 hours after birth for respiratory difficulty. During laryngoscopy on day 4 after birth, a left PS fistula was identified, catheterized and found to lead to a cyst. Exploring along the catheter facilitated excision of the cyst and entire fistula tract. The tract was followed up to the point where it entered the left PS, where it was ligated and divided. Histology showed the cyst was lined with ciliated epithelium. The patient is well without any signs of recurrence after follow-up of 5 years. Conclusions: To the best of our knowledge, this is the first report of prenatal detection of PS cyst. Preoperative catheterization of the fistula simplifies resection.

IS-018
Is Adrenomedullin Involved in the Pathophysiology of Persistent Pulmonary Hypertension of the Newborn?

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Purpose: Although adrenomedullin (ADM) is a potent vaso-dilating peptide and has been implicated in a possible role in the mechanisms of fetal lung differentiation and/or maturation, its blood level is not known in fetuses/neonates with persistent pulmonary hypertension (PPHN) and pulmonary hypoplasia. Methods: Subjects were 15 patients with PPHN: 10 congenital diaphragmatic hernias, 4 congenital cystic adenomatoid malformation of the lungs and a misalignment of pulmonary vessels with alveolar capillary displasia, and 8 patients with neonatal surgical diseases such as intestinal atresia as controls. Blood samples were drawn from umbilical artery and vein at birth. In addition, arterial blood was drawn from patients with PPHN on the 3rd and 7th day of life. Plasma levels of ADM were measured by using radiometric assay. Results: Plasma levels of ADM in the umbilical artery and vein were elevated in patients with PPHN as compared to controls. The levels in the umbilical vein were higher than those in the umbilical artery of all groups. The levels in patients with poor prognosis showed a further increase on the 3rd and 7th day of life. Conclusion: ADM may be involved in the pathophysiology of PPHN and in the mechanisms of lung differentiation and/or maturation.