

ISP-2-9 Antenatal three-dimensional sonographic features of fetal biliary atresia

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[Introduction] We present antenatal three-dimensional (3D) sonographic features of fetal biliary atresia. [Case report] A 38-year-old pregnant Japanese woman was referred to our ultrasound clinic because of fetal intra-abdominal cyst at 19 weeks of gestation. At 34 weeks, conventional 2D sonography and 3D sonography with inversion and transparent X-ray modes clearly revealed a round to oval cyst connected with the gallbladder via the cystic duct. A diagnosis of choledochal cyst (type 1) was suggested antenatally. However, the final diagnosis employing operative cholangiography during surgery was biliary atresia (type 1 cyst) at 25 days of life. [Conclusion] To the best of our knowledge, this is the first report of biliary atresia employing antenatal 3D sonography with inversion and transparent X-ray modes.

ISP-3-1 ATP-binding cassette transporter A1 (ABCA1) expression is decreased in preeclamptic placentas

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[Objective] High serum levels of oxidized LDL (oxLDL) are one of the features of preeclampsia (PE). ATP-binding cassette transporter A1 (ABCA1) mediates cellular efflux of cholesterol, and Liver X receptor (LXR) is its transcriptional regulator. We previously reported that lectine-like oxidized LDL receptor 1 (LOX-1), a scavenger receptor for oxLDL, was decreased in PE placentas. The aim of this study was to determine whether reduced LOX-1, along with oxLDL, affects the regulation of ABCA1 expression in PE placentas. [Methods] Placentas were collected from normal (n=10) and PE pregnancies (n=10), after obtaining written informed consent from each patient. Expressions of ABCA1 and LXR were evaluated by RT-qPCR and Western blotting. The JAR choriocarcinoma cell line was treated with oxLDL (100µg/ml), in the presence or absence of LOX-1 blocking antibody (30 µg/ml), and ABCA1 expression was analyzed. [Results] Both ABCA1 and LXR expressions were significantly lower in PE placentas than those in normal controls. OxLDL upregulated ABCA1 expression, while LOX-1 blockade resulted in the alleviation of increasing ABCA1 in JAR cells. [Conclusion] This study showed that low LOX-1 expression may lead to insufficient oxLDL uptake, thereby contributing to reduced LXR activation and decreased ABCA1 expression in PE placentas.

ISP-3-2 Pathologic and clinical pictures of Villitis of unknown etiology (VUE)

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[Objective] Villitis is used to describe the situation where the mother's T-cells attack the villi. There is unknown cause which is currently termed Villitis of unknown etiology (VUE). VUE leads to the loss of villi which is why babies born with villitis are usually smaller and in more distress than those who are born normally. [Methods] I examined 105 cases of VUE looking at singletons only, no twins. I divided them clinically; mild cases and severe cases. Severe cases were those defined as having apparent FGR, PIH and IUFD. For pathological study, Altshuler's classification was used to group as quality, while Fox was used to grade as quantity. I divided them pathologically by quality and quantity. [Results] Quality is not related to clinical severity, however quantity has a strong relation to clinical severity. [Conclusion] If the grade increase and fell under placental dysfunction, it was noticed in the clinical picture, that the villi affected by VUE were severely damaged. The cause of VUE in regards to quality can still not be found in clinical pictures, however I would encourage greater pathological study of placenta to discover more about the onset of VUE, because we must just notice something.