(EP17.37) A case report of hypoplastic kidney involved hypoplastic lung resulted in neonatal death without oligohydramnios

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【Case】A 30-year-old primiparous woman was referred to our perinatal center because of fetus growth restriction at 19 weeks of gestation. The expected date of confinement was decided definitely in the first trimester. Estimate fetal weight indicated -1.8SD. Fetal morphological assessment was revealed normal findings except single umbilical artery. Result of amniocentesis was 46, XX.

She visited to our hospital because of decreased fetal movements at 37+4 weeks of gestation. The amniotic fluid index was less than 1cm, and the severe prolonged deceleration was observed. Thus, The caesarean section was performed due to diagnosis of NRFS. The female infant weighing 2481g (-0.55SD) with 5/6 (1/5 min.) Apgar score. Nothing malformation and normal placenta were observed. Though the first crying was recognized immediately after birth, thereafter breathing state turned worse. Nitric oxide and HFO ventilation were used, but the breathing state was not improved resulting in neonatal death at 3 days. Autopsy revealed left hypoplastic lung and bilateral hypoplastic kidneys.

【Conclusion】Clinical course in the present case was similar to Potter’s syndrome, though long term oligohydramnios was not observed. Bilateral kidneys were confirmed by antenatal ultrasound. However, diagnosis of hypoplastic kidney was difficult antenatally because of absent of oligohydramnios. The present case suggests that diagnosis of hypoplastic lung might be insufficient only by amniotic fluid volume.