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Background

Unilateral cerebellar hypoplasia (UCH) is a rare posterior fossa disease. It is a focal lesion in which the volume of one cerebellar hemisphere is reduced or absent. At present, the pathogenesis is not clear, and most studies indicate that UCH is a vascular lesion that may be secondary to bleeding and/or ischemia, rather than a true deformity. At present, only a few literatures have reported this disease.

Objectives

This paper reported a case of fetal UCH. The purpose is to provide an important basis for prenatal diagnosis and consultation, provide help for clinical pregnancy guidance, and enhance the confidence of pregnant women and their families with such isolated UCH lesions to continue pregnancy.

Case Presentation

Pregnant woman, 43 years old, G 4 P 2 A1, no special history, 22 weeks of pregnancy ultrasound (US) in our hospital showed that the bilateral cerebellar hemispheres were asymmetrical. the right cerebellar hemisphere was small in size, about 9mm×7mm, the left cerebellar hemisphere was normal in size, about 13mm×10mm, and the cerebellar vermis morphology was not significantly abnormal.



- These US signs were considered to be right UCH, and the MRI results of the fetal brain in the other hospital were consistent with US diagnosis. The chromosome karyotype of amniotic fluid puncture was normal, and the results of chromosome microarray showed that arr (X, N) $\times 1$, (1-22) $\times 2$, and no definite or possible pathogenic copy number changes were detected. Full-term cesarean section was delivered to a boy with a birth weight of 3600g. At present, the baby was followed up to about 4 months after birth, and the growth and development were consistent with normal babies, and there were no neurological symptoms for the time being. Due to the short follow-up period, the regular follow-up be conducted in the later stage.

Conclusion

Fetal UCH has typical US manifestations, and suggestive diagnosis can be made in prenatal according to its US characteristics. Prenatal US suspects fetal UCH, and it is necessary to pay attention to the brain stem and vermis of the cerebellum, and screen for other malformations. The prognosis of isolated UCH fetuses is good, the prognosis of nonisolated UCH fetuses is mainly affected by the severity of the combined abnormalities.