

A case of central nervous system anomaly: syntelencephaly

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Objective

Syntelencephaly is a very rare central nervous system anomaly also known as middle interhemispheric variant holoprosencephaly (HPE) which was described in 1993. Syntelencephaly is characterized by abnormal midline union of the posterior frontal and parietal lobes with variable fusion of thalami. Interhemispheric fissures always present anteriorly and posteriorly and fetal face is usually normal also a specific type of dysgenesis of corpus callosum (CC) (genu and splenium parts of CC are present but corpus is absent) accompanied with this anomaly and azygos anterior cerebral artery is always present. These two signs can be accepted as pathognomonic for syntelencephaly also neuronal migration disorders can be associated with syntelencephaly.

Methods

We present a case of syntelencephaly in a 27 weeks fetus, who referred our center because of polyhydramnios. It was the second pregnancy of the patient and there was no significant history due to this pregnancy and patient had been refused all aneuploidy screening tests and fetal anomaly scanning. The 2D ultrasonography was used to carry out ultrasonic examination and there was no polyhydramnios but a dysmorphic csp was present. In the mid-sagittal plane genu and splenium parts of CC were present but corpus of CC was absent and radial sulcus were seen. Posterior and anterior interhemispheric fissures were seen but lateral ventricles were fused in the middle. Thalamus and fetal face and fetal development were normal.

Results

This case illustrates the accurate diagnosis of syntelencephaly and discusses the features differentiating it from other more common forms of HPE.

Conclusion

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