Conference Abstract

DAY 1 15th September 2023 (Friday)	ORAL 2	3.30-5.00 pm	Scientific Session 7

Agenesis of Corpus Callosum: Does Loss of Connection Between Hemispheres Matter?

Manjunath C U, Nishaa P, Padmalatha K

Department of Radiology, Department of Anataomy, ESIC Medical College & PGIMSR, Rajajinagar, Banglore

Email: themanjunathumesh@gmail.com

Background: The corpus callosum is a vital structure in the brain that facilitates communication and coordination between the two cerebral hemispheres. Its anatomical and physiological features allow for the integration of sensory, motor, and cognitive processes, contributing to the overall functioning of the brain.ACC involves partial or complete absence of the main commissural pathway that connects the two cerebral hemispheres, and can be isolated (with no other abnormalities) or complex (coexisting with other abnormalities).Studies of human embryology indicates that callosal connections begin more centrally in the hippocampal primordium and the subsequent growth progresses bidirectionally.People who have a disorder of the corpus callosum typically have delays in attaining developmental milestones and poor motor coordination. Children with the most severe brain malformations may have intellectual impairment, seizures, hydrocephalus and spasticity.

Aim: In this Review, we aim to provide up-to-date and evidence based answers regarding the diagnosis and prognosis of Agenesis of Corpus Callosum (ACC) detected in ANC and Pediatrics department. We have 5 cases: 2 Antenatal and 3 Child.A female in ANC, G3P1A1 with 29 weeks of pregnancy and another female, G2P1 with 26 weeks of pregnancy. A pediatric patient with complete corpus callosal agenesis, another patient with syndromic agenesis and a pediatric patient with partial agenesis of corpus callosum presented with seizures and developmental delay.

Results & Conclusion: Corpus callosal agenesis is a complex neurological condition with diverse etiological factors and clinical manifestations. Radiological imaging, particularly MRI, plays a crucial role in diagnosis and evaluation. It may be suspected at the time of the routine anomaly scan or diagnosed on direct visualization.

Key Words: Corpus Callosum, Agenesis, Connection between hemispheres.