QUIZ 1

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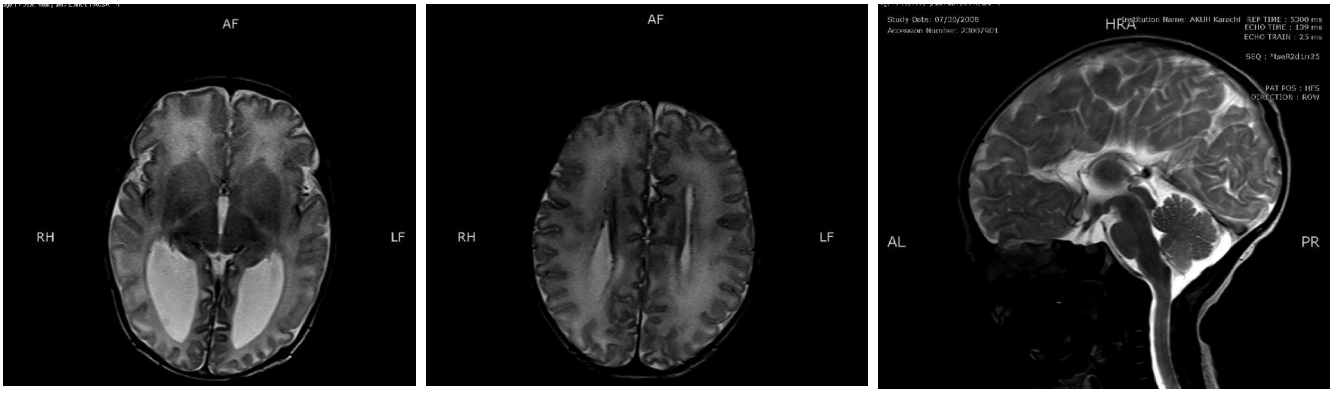
PJR Jan - Mar 2008; 18(1): 26-27



Questions

Q1: What is the abnormality in the MRI?

Q2. Absence of this part of brain is associated with what anatomical changes?

Q3. Is it associated with any syndrome?

Q4. What is the function of this organ in our brain and what is the incidence of this defect?

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Answers

Answer 1: Agenesis of corpus callosum.

Answer 2: Anatomical changes or associations to ACC are absence of septum pellucidum, colpocephaly i.e, dilatation of trigones, occipital and temporal horns, bat wing appearance of lateral ventricles i.e, widely separated lateral ventricles in straight parallel orientation, tear drop ventricles, high riding third ventricle, anterior inter hemispheric fissure adjoins elevated 3rd ventricle, sunburst gyral pattern configuaration at the normal location of corpus callosum.

Answer 3: ACC can occur as an isolated condition or in combination with other congenital brain anomalies, including Arnold-Chiari malformation, Dandy-Walker syndrome, Andermann syndrome and holoprosencephaly. Girls may have a gender-specific condition called Aicardi's syndrome.

Answer 4: Corpus callosum the band of tissue connecting the two hemispheres of the brain transferring information from one hemisphere to other. Failure of normal development typically in utero, results in disconnected brain hemispheres. Corpus callosum is essential for learned discrimination, sensory experience and memory. Besides complete agenesis, hypogenesis (partial formation), dysgenesis (malformation) and hypoplasia (underdevelopment) of the corpus callosum can also occur. The reported frequency in US is 0.7-5.3%.

References

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2. Patel TR, Bannister CM, Thorne J. A study of prenatal ultrasound and postnatal magnetic imaging in the diagnosis of central nervous system abnormalities. Eur J Pediatr Surg. 2003 Dec;13 Suppl **1:**S18-22.