





Connatal Cyst in a 50-Year-Old Patient

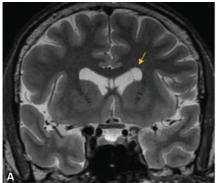
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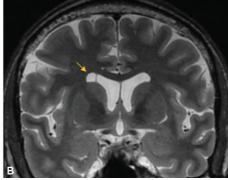
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In this letter to the editor, we would like to report a case of incidental connatal cyst in a 50-year-old male patient. The patient was on migraine medications; however, he had recurrent episodes of headaches with nausea and was asked to perform a magnetic resonance imaging (MRI) by a treating physician. There is no past history of seizures, paresis or plegia, sensorineural deficits, cranial nerve involvement, urinary incontinence, etc. in the patient. The patient was born of a normal delivery at term, with no history of neonatal hospitalization, prolonged jaundice, and respiratory distress. Neurological examination was normal. On MRI, T2-weighted (T2W) coronal images showed bilateral hyperintense cysts located superolaterally to frontal horns (>Fig. 1A and B). Similarly axial T2W images showed the hyperintense cyst anterior to the frontal horns (>Fig. 1C). On fluid-attenuated inversion recovery coronal images and T1W, they appeared hypointense (Fig. 2A and B) without any evidence of associated inflammation and periventricular gliosis. Given the location and no significant neonatal history in the patients, the findings on MRI are consistent with frontal horn cyst aka coarctation of lateral ventricles or connatal cysts.

Connatal cysts are rare normal aberrations in ventricular structure. They are cystic areas found superolaterally to frontal horns of lateral ventricles and are considered to be formed due to adhesions between walls of lateral ventricle. Hence, they are also called coarctation of lateral ventricles. 1,2 The lesions are most commonly found in neonates, and have been associated with preterm infants. They are usually seen to regress in





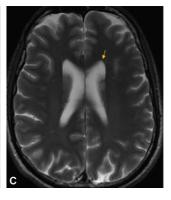


Fig. 1 (A and B) Magnetic resonance imaging (MRI) T2-weighted coronal images; arrows depicting a well-defined, T2 hyperintense subcentimeter, cystic areas adjoining the superolateral margins of frontal horns and body of the lateral ventricles, bilaterally. (C) MRI T2weighted axial image; arrow showing a T2 hyperintense cyst anteriorly adjoining the superolateral margins of frontal horns and body of the lateral ventricles.

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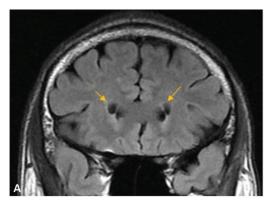
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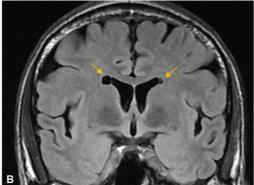


Fig. 2 (A and B) Magnetic resonance imaging fluid-attenuated inversion recovery coronal images; arrows depicting periventricular hypointense cystic areas with no associated gliosis or volume loss, consistent with connatal cysts.

pediatric age within 1 or 2 months. The incidence is reported to be 0.38%.3 Majority of studies suggest that they are seen in less than 1% of low-birth-weight infants. 4 The aberration must be differentiated from other similar findings, especially subependymal cysts and cystic periventricular leukomalacia. The differentiation is based on the location of the cyst. Connatal cysts are usually seen near superolateral frontal horn, subependymal cysts at the level of or posterior to foramen of Monro and periventricular leukomalacia found predominantly in the white matter above the ventricles or occipital area.^{5,6}

Subependymal cysts usually present following grade 1 germinal matrix hemorrhage in preterms. And periventricular leukomalacia may develop into porencephalic cysts and is also seen with hemorrhage or infarction with poor prognosis.^{4,7} A very few case reports describe the presence of connatal cysts in adults^{8,9} significance of such findings in adults is not well studied; however, we believe them to be nonsymptomatic aberrant part of lateral ventricles. Treatment is not necessary even if the cyst is seen in adults.

Conflict of Interest None declared.

References

- 1 Rosenfeld DL, Schonfeld SM, Underberg-Davis S. Coarctation of the lateral ventricles: an alternative explanation for subependymal pseudocysts. Pediatr Radiol 1997;27(12):895-897
- 2 Davidoff LM. Coarctation of the walls of the lateral angles of the lateral cerebral ventricles. J Neurosurg 1946;3:250-256
- 3 Sener RN. MRI and asymptomatic coarctation of the frontal lateral ventricle horn. J Neuroradiol 1997;24(02):163-167
- 4 Pal BR, Preston PR, Morgan ME, Rushton DI, Durbin GM. Frontal horn thin-walled cysts in preterm neonates are benign. Arch Dis Child Fetal Neonatal Ed 2001;85(03):F187-F193
- 5 Tan ZY, Naidoo P, Kenning N. Case of the month. Ultrasound and MRI features of connatal cysts: clinicoradiological differentiation from other supratentorial periventricular cystic lesions. Br J Radiol 2010;83(986):180-183
- 6 Scelsi CL, Rahim TA, Morris JA, Kramer GJ, Gilbert BC, Forseen SE. The lateral ventricles: a detailed review of anatomy, development, and anatomic variations. Am J Neuroradiol 2020;41(04):566-572
- 7 Epelman M, Daneman A, Blaser SI, et al. Differential diagnosis of intracranial cystic lesions at head US: correlation with CT and MR imaging. Radiographics 2006;26(01):173-196
- Bizimana W, Amarkak WA, Fikri M, Jiddane M, Touarsa F. Connatal cyst in a 20 year old girl. J Clin Images Med Case Rep 2021;2(06): 1514
- 9 Dietemann JL, Ludwiczak R, Heldt N, Wackenheim A. Frontal horn coarctation: CT demonstration. A report of two cases. Neuroradiology 1979;18(04):217-219