

Prenatal Case of Chiari I Identified

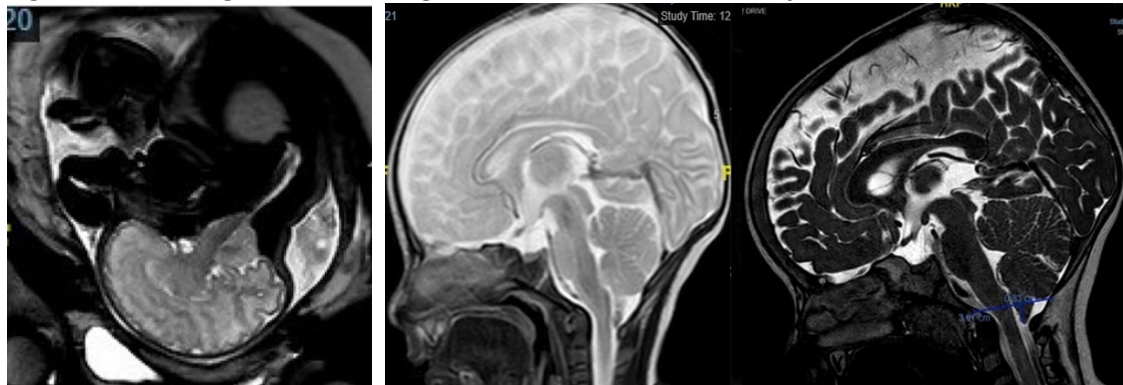
In a fascinating case study, doctors from France reported identifying Chiari I on routine prenatal ultrasound. The case involved a healthy 33-year old woman with no history of neurological issues or family health problems. At 24 weeks gestation, sonography showed reduced space around the cerebellum and hard to define borders. Chiari II, which is associated with spina bifida, is often found prenatally and that is what was suspected here. However, when an MRI was performed it turned out that just the cerebellar tonsils were descended (Figure 1) and there was no myelomeningocele as with Chiari II. This indicated it was in fact Chiari I.

The baby was delivered without problem and was perfectly healthy at birth. Regular imaging as the child grew showed progression of the herniation from an initial 6mm to 10mm at 3 years of age. Despite this, the child has no symptoms as of yet and is neurologically sound.

Because the cerebellar tonsils were pointed even at the initial fetal MRI, the doctors speculated that there might have been some type of CSF disruption during fetal growth, but there was no evidence of a CSF leak on any of the imaging. Chiari I is often referred to as a congenital condition – meaning people are born with it- because of the small posterior fossa theory. Unfortunately, in almost all cases it is impossible to determine if this is true since there is no imaging from before diagnosis.

We of course wish this child well and hope they never experience any symptoms.

Figure 1: MRI Images at 32 weeks gestation, 1 month old, and 2 years old



Source: Prenatal diagnosis of chiari type 1 malformation. Dandes M, Massardier J, Vinchon M, Szathmari A, Beuriat PA, di Rocco F, Guibaud L. Childs Nerv Syst. 2025 Jul 22;41(1):240. doi: 10.1007/s00381-025-06896-0. PMID: 40694120

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Conquer Chiari is a 501(c)(3) public charity dedicated to improving the experiences and outcomes of Chiari patients through education, awareness and research.