Definitions

cerebellar tonsils - portion of the cerebellum located at the bottom, so named because of their shape

cerebellum - part of the brain located at the bottom of the skull, near the opening to the spinal area; important for muscle control, movement, and balance

cerebrospinal fluid (CSF) - clear liquid which surrounds, and protects, the brain and spinal cord

Chiari malformation - condition where the cerebellar tonsils are displaced out of the skull area into the spinal area, causing compression of brain tissue and disruption of CSF flow

decompression surgery - common term for any of several variations of a surgical procedure to alleviate a Chiari malformation

laminectomy - surgical removal of part (the bony arch) of one or more vertebrae

magnetic resonance imaging (MRI) - diagnostic test which uses a large magnet to create images of internal body parts

renal - having to do with the kidneys

Spontaneous Resolution Of Chiari

Case Studies is a feature designed to highlight interesting patient cases reported in the research. Given the lack of knowledge about CM/SM, much of the published research comes in the form of case studies - doctors describing one or two patients they have seen and treated - as opposed to rigorous scientific studies. While this type of publication doesn't advance the scientific cause as much, it does give us a window into some of the issues surrounding CM/SM, including lasting side effects and related conditions. And hopefully, some of our readers will say, "Hey, that's just like me!" and know they are not alone in what they are going through.

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Spontaneous Resolution Of Isolated Chiari I Malformation

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University/Hospital: Birmingham Children's Hospital, United Kingdom
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Introduction: It's every Chiari parent's dream, Chiari goes away on its own. But the question is, if a Chiari malformation resolves on its own, was it ever really Chiari?

Patient: A 14 month boy with a history of kidney failure was taken to the ER because of jerky movements of his entire body. Tests for seizures were normal as was an EEG. No action was taken at that time. The boy was seen again 2 months later because of the same movements. MRI revealed a 5mm Chiari malformation, but doctors were not sure the movements were related to it and decided to just observe. His kidney problems continued to worsen and he eventually needed a transplant. When he was 6 six years old, he was taken to the ER again because of headaches, dizziness, and vomiting. MRI showed complete resolution of the Chiari malformation.

Treatment: No Chiari related treatment was ever given.

Outcome: The herniated tonsils moved back up into the normal position.

Author's Discussion: The authors point out that only a few cases like this have been reported in the literature, so they are quite rare. One theory is that as children grow there is a mismatch between how quickly the skull and the brain grow. For a period of time, the skull may be too small to accommodate the cerebellum, but once it catches up, the cerebellum is able to move up into its natural position.

Editor's Discussion: This case highlights how incomplete the current definition of Chiari is. Study after study has shown little or no correlation between the amount of herniation and symptoms or clinical outcome. It also demonstrates that MRIs are a necessary, but not sufficient part of diagnosing Chiari. An MRI alone does not always show the whole picture.

--Rick Labuda