

Anish Patel, M.D. Michelle Peartree, PA-C Kristin Severinsen, PA-C

NEWSLETTER



VOLUME 3

## Chiari I Malformation and Syringomyelia

Chiari I Malformation is a congenital malformation that usually causes no symptoms but if symptoms are present, the malformation must be addressed. Chiari I Malformation ensues when the the posterior fossa of the skull is malformed or small leading to a blockage of adequate cerebrospinal flow. The most reliable test to diagnose Chiari Malformation is by MRI. Elongated tonsils herniating into the spinal canal is commonly seen on MRI imaging.

There are no specific symptoms for Chiari I Malformation but may include severe headaches or neck pain, disequilibrium, muscle weakness, dizziness, tinnitus, difficulty swallowing or compromise of fine motor skills. Vision abnormalities such as blurriness, double vision or hypersensitivity to bright lights could also be present.

**H**ydrocephalus (build up of cerebrospinal fluid in the ventricles of the brain) and syringomyelia (SM) can be comorbid conditions with Chiari I Malformation. If a patient has a malformation, it is recommended that the entire spine is imaged to rule out the presence of a syrinx (a cavity of cerebrospinal fluid). Not all patients with Chiari Malformations will develop a syrinx. The symptoms of SM tend to develop over time and commonly include motor and sensory impairment, weakness, spasticity, headaches, and bowel or bladder incontinence. Most patients will suffer from headaches and chronic pain.

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**T** reatment is aimed at correcting the underlying condition that allowed the syrinx to form and the only viable treatment is surgery. If SM is associated with Chiari I Malformation, enlarging the posterior fossa to allow for more space for the cerebellum is necessary if symptoms are severe. If the normal flow of CSF is restored, the syrinx should decompress.



CHIARI MALFORMATION

DECOMPRESSION

Figure 1. Surgical Correction of Chiari Malformation

For Information and Referrals: (610) 954-9040

Compassion