

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

cervical - the upper part of the spine; the neck area

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

idiopathic - due to an unknown cause

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

myelopathy - any disease which affects the spinal cord

syringomyelia (SM) - neurological condition where a fluid filled cyst forms in the spinal cord

syrinx - fluid filled cyst in the spinal cord

Idiopathic SM In Football Player, SM Among Elderly

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.

CASE 1: Idiopathic SM In A Football Player

Reported In: Orthopedics, June 2004, Case Report

Doctors: Dr. Derek Cuff, Dr. Steven Ludwig, Dr. Brian Crites; University of Maryland, Dept. of Orthopedics

Patient:

- 21 year old male
- Division I college football player
- Suffered a direct hit on his right shoulder and experienced complete numbness and paralysis of his right arm for a few seconds
- Symptoms resolved after 15 minutes and he was cleared for practice with no symptoms
- 4 days later, suffered a similar hit and symptoms returned
- Exam revealed decreased strength and sensation in right arm and hand
- X-ray of the neck revealed nothing
- Steroids helped some, but 13 days later, still suffered symptoms
- MRI revealed a syrinx from C4-C6, but no Chiari malformation
- Was evaluated by a neurosurgeon who concluded that the syrinx and the symptoms were not related, that the syrinx was asymptomatic, and had been there for an extended period of time
- 17 days after injury, all symptoms resolved on their own
- Two other neurosurgeons were consulted regarding return to playing football
- All surgeons agreed that the syrinx posed a small, but undefined risk and that patient could return to football if he understood the risks
- Patient returned to playing football and is being monitored with MRI's every 3 months

Observations:

- The cause of this patient's symptoms was difficult to determine. Although the location of the syrinx coincided with his symptoms, the neurosurgeon concluded the syrinx was not the cause of his symptoms
- In addition, the cause of his syrinx is unclear. With no Chiari malformation and no history of disease or surgery that might cause a syrinx, this is labeled as idiopathic syringomyelia
- The authors speculate that the syrinx may have been caused by the repeated traumas of playing football over the years
- The natural course of idiopathic, and asymptomatic, SM is not well understood, so the decision whether to continue an activity like football is difficult

Editor's Note: *Clearly a severe trauma, such as a spinal injury, can cause SM. However, the role that minor, repeated traumas play is not as clear. Some researchers believe even minor trauma - especially whiplash - can play a role in SM, although the exact mechanism is not understood. Would you continue to play football in this case? Would you let your son continue to play?*

CASE 2: SM Among The Elderly

Reported In: Journal of the American Geriatric Society, June 2004; Letter to the Editor

Doctors: Dr. Daniel Wollman; Mount Sinai School of Medicine, Dept. of Geriatrics

Patient:

- 80 year old woman
- Trouble walking, abnormal sensations, including burning, especially in her hands
- Symptoms started 5 years previously with neck pain and numbness in a cape-like distribution
- Diagnosed with syringomyelia 2 years ago with an extensive syrinx from C2-T4
- Decompression surgery was recommended, but she refused
- Symptoms continued to worsen
- Abnormal feeling in her hands led patient to bite her nails compulsively, damaging her hands
- She was treated unsuccessfully with drugs

Observations:

- While myelopathy is common among the elderly, the development of symptomatic syringomyelia this late in life is rare
- Literature review revealed only one other case report
- The non-surgical options for symptomatic, progressive Chiari and syringomyelia are limited and often ineffective

Ed Note: *Two things struck me about this sad case. First, this woman presented with the classic signs of SM, namely neck pain and numbness in a cape-like distribution, yet it took 3 years to diagnose syringomyelia. I believe the long delay between onset of symptoms and proper diagnosis, which many people experience, greatly impacts their outcome. Second, there is little research into why people become symptomatic at different ages. If the Chiari malformation is really there at birth - as many researchers believe - what is different in people? One way I've begun to think about it is that it is like a point system. Each person is born with a different point threshold as to when they become symptomatic. As you go through life, you accumulate points from experiences that impact your system: for example coughing, sneezing, car accidents, falls, whiplash, etc. When the points you've accumulated cross your threshold (based on your specific anatomy), you become symptomatic.*

[Home](#) | [About Us](#) | [Email](#) | [Donate](#) | [Get Involved](#) | [Privacy Policy](#)

Disclaimer: This publication is intended for informational purposes only and may or may not apply to you. The editor and publisher are not doctors and are not engaged in providing medical advice. Always consult a qualified professional for medical care. This publication does not endorse any doctors, procedures, or products.

© 2003-2020 C&S Patient Education Foundation