

Case Highlights Serious Complication of Chiari Surgery

Like any surgery, Chiari decompression can involve complications, the most common of which include CSF leaks, infection, and pseudomeningoceles (an abnormal collection of CSF). One very serious complication that does not receive as much attention is cerebellar ptosis, or slumping, where the descent of the cerebellum actually gets WORSE after surgery due to too much of the cranial bone being removed.

A recent case study highlighted this very serious complication. The authors reported that a 22-year-old man started experiencing severe headaches and neck pain two weeks after Chiari decompression surgery. After ruling out meningitis, an MRI revealed that a large amount of bone had been removed as part of the initial procedure (Figure 1) and the cerebellum had slumped down significantly as a result and was blocking CSF flow.

The man underwent a second operation where the surgeons used bone cement to create a new cranial shelf and attached it to the existing cranium with titanium, thereby drastically reducing the size of the foramen magnum (the opening at the bottom of the skull). The patient experienced immediate relief from his symptoms and was able to return to work two weeks later. Two years after the second operation, he remained headache and pain free.

The authors suggest that in cases where symptoms get worse within a month or two of surgery that ptosis be checked for. Since the cerebellar tonsils are often manipulated during decompression surgery, they present an alternative measurement involving the fastigium and pons (Figure 2, F & B) rather than tonsillar position. If these have descended 2mm or more from before the decompression surgery, ptosis is suspected.

Figure 1

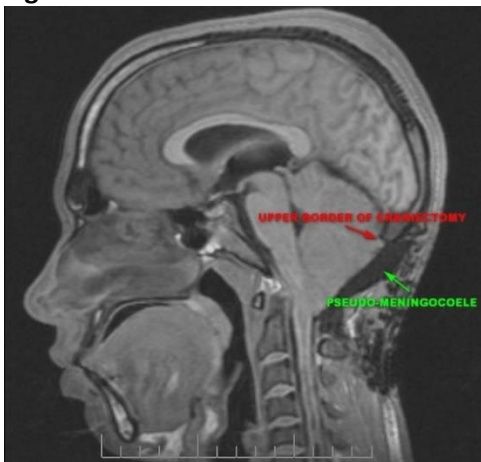
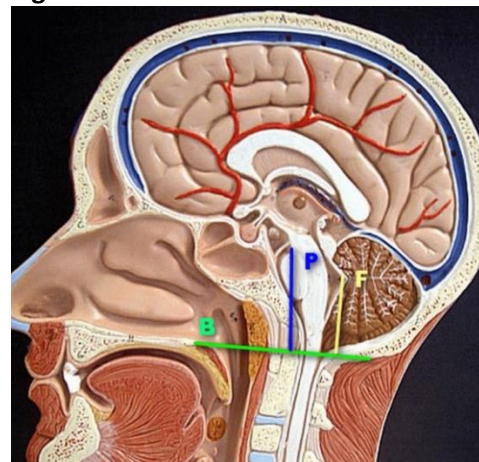


Figure 2



Source: Symptomatic Cerebellar Ptosis After Wide Foramen Magnum Decompression for Chiari I Malformation. Shankar A, Johny M, Vadekkatt Sambhukumar P, Ayyappan Kutty S. Cureus. 2023 Mar 1;15(3):e35635. doi: 10.7759/cureus.35635. eCollection 2023 Mar. PMID: 37009358

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