Brain herniation

- When can lumbar fusion be considered appropriate in the treatment of recurrent lumbar disc herniation? A systematic review and meta-analysis
- Post-traumatic hydrocephalus after decompressive craniectomy: a multidimensional analysis of clinical, radiological, and surgical risk factors
- First Report of a Novel ZNF462 Variant Linked to Weiss-Kruszka Syndrome and Congenital Diaphragmatic Hernia: Insights into Potential Additional Malformations
- Perinatal palliative care in an infant with exencephaly: Supporting life beyond 3 years of age
- Uncommon Locations for Brain Herniations Into Arachnoid Granulations: 5 Cases and Literature Review
- Genetics and phenotypic heterogeneity of Galloway-Mowat syndrome
- Intractable subdural effusion after decompressive craniectomy for traumatic brain injury: A case report
- Survival of a patient with an acute traumatic subdural hematoma and high-grade liver injury with associated IVC injury without surgical intervention

Classification

Brain herniation syndromes

see Brain herniation syndromes

Etiology

Brain herniation is a potentially deadly side effect of very high intracranial pressure that occurs when a part of the brain is squeezed across structures within the skull. The brain can shift across such structures as the falx cerebri, the tentorium cerebelli, and even through the foramen magnum in the base of the skull (through which the spinal cord connects with the brain). Herniation can be caused by a number of factors that cause a mass effect and increase intracranial pressure (ICP): these include traumatic brain injury, intracranial hemorrhage, or brain tumor.

Acute subdural hematoma is a serious complication following traumatic brain injury. Large volume hematomas or those with underlying brain injury can cause mass effect, midline shift, and eventually brain herniation

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Herniation can also occur in the absence of high ICP when mass lesions such as hematomas occur at the borders of brain compartments. In such cases local pressure is increased at the place where the herniation occurs, but this pressure is not transmitted to the rest of the brain, and therefore does not register as an increase in ICP.

Because herniation puts extreme pressure on parts of the brain and thereby cuts off the blood supply to various parts of the brain, it is often fatal. Therefore, extreme measures are taken in hospital settings to prevent the condition by reducing intracranial pressure, or decompressing (draining) a hematoma which is putting local pressure on a part of the brain.

Brain herniation after cranioplasty

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